Experiential Leadership Training for Pediatric Chief Residents: Impact on Individuals and Organizations

Robert A. Doughty, MD, PhD
Patricia D. Williams, MD
Timothy P. Brigham, MDiv, PhD
Charles Seashore, PhD

Abstract

Background The past decade has seen a proliferation of leadership training programs for physicians that teach skills outside the graduate medical education curriculum.

Objective To determine the perceived value and impact of an experiential leadership training program for pediatric chief residents on the chief residents and on their programs and institutions.

Methods The authors conducted a retrospective study. Surveys were sent to chief residents who completed the Chief Resident Training Program (CRTP) between 1988 and 2003 and to their program directors and department chairs asking about the value of the program, its impact on leadership capabilities, as well as the effect of chief resident training on programs and institutions.

Results Ninety-four percent of the chief residents and 94% of program directors and department chairs reported that the CRTP was "very" or "somewhat" relevant, and 92% of the chief residents indicated CRTP had a positive impact on their year as chief resident; and 75% responded it had a positive impact beyond residency. Areas of greatest positive impact included awareness of personality characteristics, ability to manage conflict, giving and receiving feedback, and relationships with others. Fifty-six percent of chief residents reported having held a formal leadership position since chief residency, yet only 28% reported having received additional leadership training.

Conclusion The study demonstrates a perceived positive impact on CRTP participants and their programs and institutions in the short and long term.

Editor's Note: The ACGME News and Views section of JGME *includes data reports, updates, and perspectives from the ACGME and its review committees. The decision to publish the article is made by the ACGME.*

The online version of this article includes the survey of chief residents and the survey of program directors and chairs.

For more than 50 years the business sector has studied leadership effectiveness and invested heavily in training potential leaders.[1–4] In the past 20 years, the quality movement initiated by Deming[5–7] and others has emphasized health care quality improvement and the need for physician leadership of these efforts.[8–14] The recent Institute of Medicine (IOM) report, Crossing the Quality Chasm,[15] similarly emphasizes the need for leadership training for physicians. Such training improves the leadership capabilities of physicians, which has a positive impact on the organizations they lead.[8,16–18] Yet there has been little published on the impact of leadership training on individuals and on the organizations they lead.

The past decade has seen a proliferation of leadership training programs for physicians, as well as articles describing the need for such training.[16,19,20] While some training programs include topics such as leadership styles, effective communication and conflict management, many take a predominantly didactic approach to these content areas.

Experiential Education

Since 1988 we have conducted an experiential leadership training program called the Pediatric Chief Resident Leadership Training Program (CRTP) for chief residents from pediatric residency programs in the United States and Canada.[21] Training activities use an experiential learning approach, and are designed to develop interpersonal skills critical to effective leadership. In experiential education "learning occurs when a person engages in some activity,

Robert A. Doughty, MD, PhD, Senior Scholar for Experiential Learning and Leadership Development, Accreditation Council for Graduate Medical Education and Professor of Pediatrics, Jefferson Medical College; **Patricia D. Williams, MD,** Principal, Patricia Day Williams & Associates; **Timothy P. Brigham, MDiv, PhD,** Senior Vice President, Department of Education, Accreditation Council for Graduate Medical Education; former Chief of Staff, Senior Associate Dean, Organizational Development, Jefferson Medical College; **Charles Seashore, PhD,** Professor, Human and Organization Development, Fielding Graduate University.

The authors have not previously published or submitted any related papers from the same study.

Corresponding author: Robert A. Doughty, MD, PhD, Accreditation Council for Graduate Medical Education, 515 N. State St, Ste 2000, Chicago, IL 60654, 312.755.5056, rdoughty@acgme.org

DOI: 10.4300/JGME-02-02-30

looks back at the activity critically, abstracts useful insight from the analysis and puts the results to work.''[22–24] Experiential education does not preclude teaching of theoretical models, facts, or suggested approaches, yet these are offered after participants have received feedback from peer learners and facilitators and have had the opportunity to make their own inferences about what they have experienced and learned.[25–27]

CRTP is a 3- to 4-day training program designed to develop the interpersonal skills critical to effective leadership. Enrollment is capped at 50 participants to ensure a ''learning community'' in which participants are safe to participate, challenge, explore, and experiment with new behaviors.[28] Topics include personal leadership styles, leading groups and teams, managing conflict, working with hospital administrators and other health care professionals, giving and receiving feedback, and building a support system. The experiential approach engages participants, encourages experimentation, builds skills, and internalizes learning for future application. Program goals include: facilitating the transition from the role of senior resident to that of chief resident, enhancing participants' ability to effectively self-manage, interact with others and lead teams, and creating opportunities to meet and learn from chief residents in other programs.

We targeted the training program to newly appointed chief residents because of their relative inexperience in leadership roles, their openness to training, their function as role models for medical students and residents, and their potential future leadership role throughout their career.[29] Immediate and 6-month postcourse evaluations have been consistently positive regarding course content and its favorable impact on the individual's self-perceived ability to function as chief resident.[21]

In the first part of our study, we determined whether the course has a long-term impact on participants. The second part of the study assessed the program directors' and department chairs' perceptions of the impact of training on the chief residents and on their residency programs. Kirkpatrick suggested that the ultimate assessment of training is its impact on behavior, in the form of capability improvements, and on results, due to the improved performance of individuals after added training.[30–31] This survey also gathered respondents' perceptions of the chief residents' potential as future leaders.

Methods

We assessed the long-term impact of the CRTP on the chief residents in 2004. We conducted a retrospective study of chief residents who participated in the course between 1988 and 2003. Because chief residents are often assumed to be potential future leaders, we also gathered information on their subsequent leadership roles. The survey was sent to all chief residents who had participated in the course since 1988 and for whom an address was obtainable. E-mail was the method of contact for the majority of participants. US mail was used to contact participants for whom correct e-mail addresses were not available.

Participants completed a 20-item survey to assess their recollection of the value of the learning experience, the impact of the training on specific leadership capabilities, participation in subsequent leadership training activities, and leadership roles subsequently held by participants. To assess the program and institutional effect of chief resident training we surveyed program directors and department chairs of pediatric residency programs in late 2004 and early 2005. We obtained addresses from the Association of Pediatric Program Directors (APPD) and the Association of Medical School Pediatric Department Chairs (AMSPDC). Because individuals frequently move from one institution to another, the authors contacted all program directors and chairs rather than only those whose programs had sent a chief resident to the CRTP since 1988. The survey comprised 12 questions to determine respondents' perception of the value of sending newly appointed chief residents to the course, the impact of the training on specific leadership capabilities, the perceived impact on specific aspects of the residency program, and whether chief residents have the potential to hold future leadership positions.

For both the chief resident and the program director survey, we included specific leadership capabilities in 3 content areas (delegation skills, time management, and physician-patient relationship) that were addressed only indirectly in the training program.

Results

Impact on Individuals Who Participated in CRTP

Of 1124 course participants between 1988 and 2003, we received notification of failed delivery for 142, leaving 982 who were likely to have received the survey. A total of 363 participants completed the survey, for a response rate of 37%. The female and male response rates of 58% and 42%, respectively, were comparable to the distribution of course participants (60%/40%). The mean number of years since serving as chief resident was 7.6; the median was 7.

Of the respondents, 96% reported they were satisfied or very satisfied with the appropriateness of the content; 94% reported being satisfied or very satisfied with the length of training; and 96% indicated the CRTP was a ''very significant'' or ''somewhat significant'' experience for them.

Asked about the relevance of the training for their professional development, 94% responded that it was ''very'' or ''somewhat'' relevant, ''92% reported that the program had a positive impact on their year as chief resident, and 75% reported that the program had a positive impact beyond the chief resident year. Of respondents, 82% would recommend the CRTP to others, and 12% reported that they probably would.

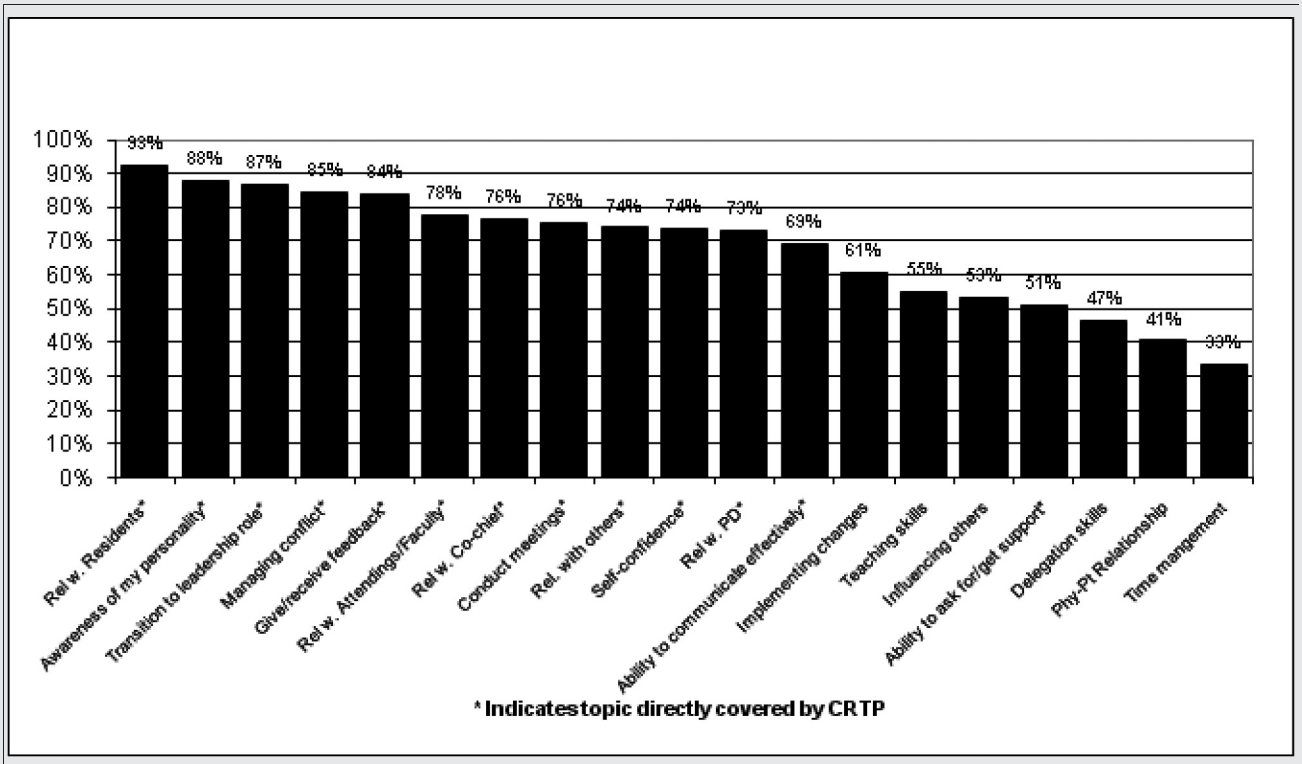

FIGURE 1 **Chief Resident-Reported Areas of Positive Impact During Chief Residency**

In response a question about the positive impact of the program, the most common areas included relationships with residents (93%), awareness of own personality characteristics (88%), transition into leadership role (87%), ability to manage conflict (85%), and ability to give and receive feedback (84%). Other areas, rank ordered by degree of positive impact, are shown in FIGURE 1. The 3 areas checked least often – delegation, physician-patient relationship, and time management – are areas addressed only indirectly by the training program.

When asked which areas showed a positive impact "subsequently," (FIGURE 2) participants again most often cited awareness of own personality characteristics (63%), ability to give and receive feedback (59%), and ability to manage conflict (57%).

Nearly one-third of the respondents (29%) indicated they had received additional leadership training. Respondents cited a variety of local and national settings in which they had received added training and a variety of topics. The most common topics were teaching skills (12 respondents), conflict management (11 respondents), group/team dynamics (7 respondents), and feedback (7 respondents). Several of the topics relate to faculty development, including teaching skills, curriculum development, writing and presentation skills, and research skills, while others related to clinical practice, such as giving and receiving bad news, and customer service training.

Asked whether they would be interested in attending an advanced leadership training course, 67% responded yes. Participants reported they most desired further training in conflict management, personal leadership style, supervision and feedback, group dynamics, and time management.

Seventy-nine percent indicated they expected to practice general pediatrics, and 21% indicated a pediatric subspecialty. The most frequent current professional settings were academic (31%), private practice (20%), hospital practice (19%), group practice (14%), and administration (7%).

A total of 233 respondents (64%) reported having held at least one other professional leadership position, and 30% indicating they had held 2 or more of these positions (Associate, Assistant, or Program Director; Associate, Assistant, or Division Leader; Associate, Assistant, or Department Chair; Medical Director and leadership roles in a Medical Practice, Hospital, or Health System or a Medical Society or Professional Association). Asked to list any other significant leadership roles held, respondents cited a wide range of professional leadership roles and leadership outside of the professional setting.

In response to an open-ended question, participants provided 64 positive comments and 2 comments that expressed dissatisfaction with aspects of the course. The positive comments expressed appreciation for the course, cited the immediate and continued usefulness of the concepts learned and the networking with other chief

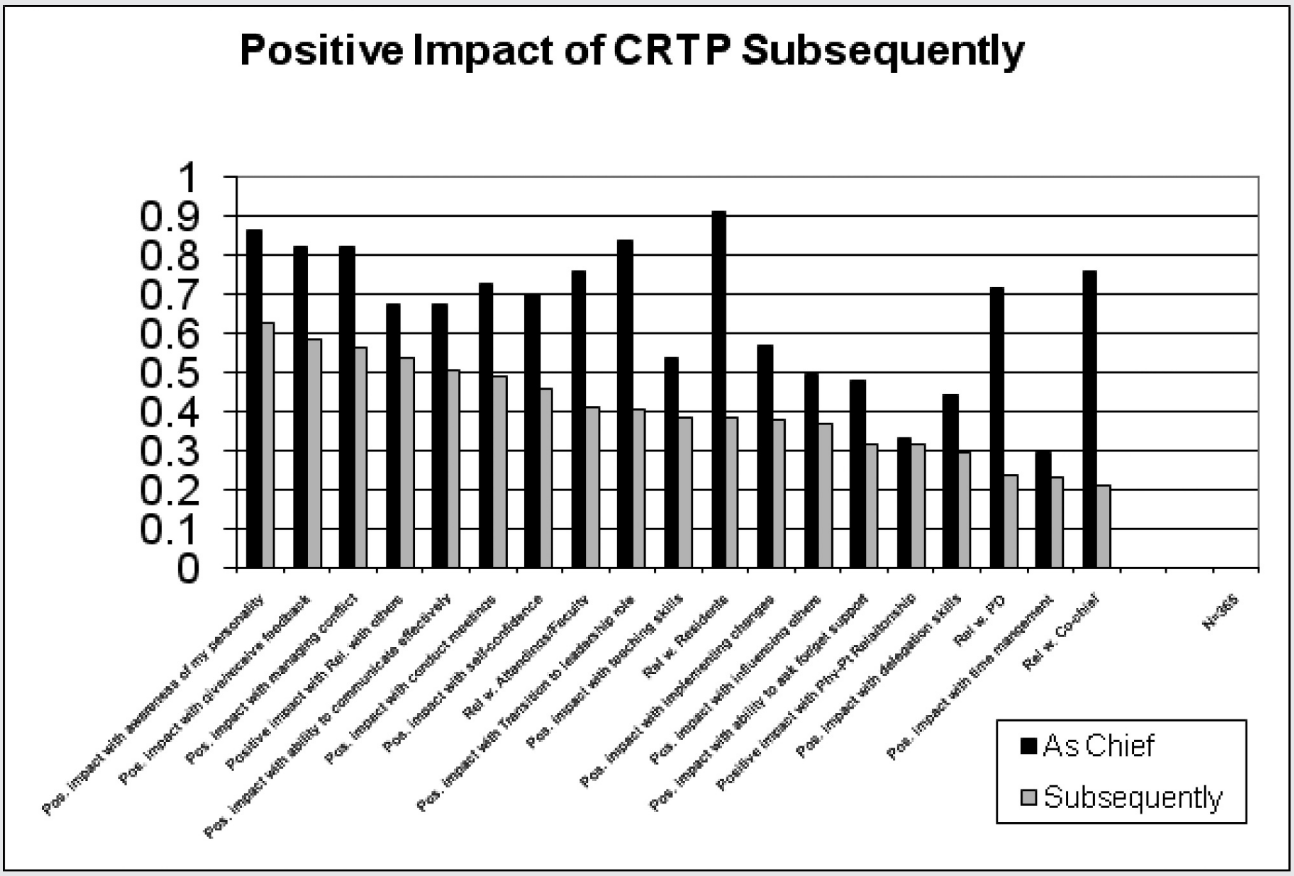

FIGURE 2 **Chief Resident-Reported Areas of Positive Impact Subsequent to Chief Residency**

residents, described subsequent teaching of what had been learned to others, and/or attested to the importance of this type of leadership training.

Impact on Programs and Institutions

Of surveys sent electronically to 196 program directors and 148 department chairs, 10 were returned citing incorrect e-mail address and 4 individuals declined to respond. Of 330 possible respondents, 121 (37%) completed the online survey. Of these, 24 indicated that they were not aware of having sent someone to the course. These respondents completed only the general questions, and 97 individuals completed the entire survey.

Ninety-one respondents (94%) reported that sending a newly appointed chief resident to the CRTP was "very" or "somewhat" worthwhile, and 89% reported they thought the course helped "prepare attendees for future leadership positions such as program director or department chair." In response to the question whether they would recommend the CRTP course to others, 92% of the respondents said they "definitely" or "probably" would. No one responded "definitely would not" recommend the course.

The most common areas mentioned about the positive impact of chief residents' participation in CRTP included transition into new leadership role (83%), self-confidence (59%), relationship with residents (58%), ability to manage conflict (54%), and ability to conduct meetings and lead groups (44%). Of the 4 areas checked least often – delegation skills, ability to ask for/get support, time management, and physician-patient relationship – 3 were addressed only indirectly in the training program.

Asked about the areas where chief residents' participation in CRTP had the largest effect, respondents most often cited resident program morale (52%), morning report (46%), feedback and evaluation (43%), and making up coverage and call schedules (43%). Nine respondents specifically mentioned networking with other chief residents and/or learning about how other residency programs handle challenges.

Of 121 respondents who answered the general questions, 96% felt that chief residents have the potential to hold future leadership positions, and 89% of the 97 respondents familiar with the CRTP indicated they felt the course helped prepare attendees for these positions.

Discussion

Our findings suggest chief residents, program directors, and department chairs view CRTP as a valued activity for

developing pediatric medical leaders. In addition, the course is perceived to have a positive impact on specific aspects of pediatric residency programs.

The vast majority of chief residents reported being satisfied with the content, faculty, and length of the training, a similar percentage indicated the program had a positive impact on their year as chief resident, and three-fourths reported the positive impact lasted beyond the chief resident year. Areas of greatest impact included awareness of one's own personality characteristics, management of conflict, ability to give/receive feedback, ability to communicate effectively, and develop professional relationships; these areas are important skills for clinicians, as identified by the Institute of Medicine and a task force on the Future of Pediatric Education.[15,32]

The experiential nature of the training likely contributed to its long-term impact. The impact of experiential methodology is due in part to the fact that "the methods are ways by which persons learn how to learn for themselves" long after the training activity has concluded.[33] This "openness to continually learning more" has been cited as a distinguishing characteristic of outstanding leaders,[34,35] and the need to incorporate such learning within practice organizations has been recognized as well.[36]

Less than one-third of participants had received additional leadership training since the CRTP, and less than 10% had received additional training in interpersonal aspects of leadership such as conflict management, leadership styles, supervision and feedback, and group dynamics.

Of particular note is that the greatest perceived positive impact on residency programs was on resident morale. Studies have found high levels of stress and burnout among residents (from depression and problematic patient care) and that aspects of residency training that correlate with resident satisfaction include clear management, adequate feedback, a right to a voice in important matters, and a culture of openness and tolerance; while burnout and emotional exhaustion co-sort with inherently difficult job situations, stress in relationships with faculty and senior residents, and perceptions of work as stressful.[37–40] It is likely that the positive effect on resident morale contributes to lower resident stress and burnout in programs where chief residents completed CRTP.

Former chief residents continue to provide medical leadership in a variety of professional settings. Of those who responded to the survey, almost two-thirds have gone on to hold at least one leadership position in medicine.

Limitations

One limitation of our study is response bias, the possibility that respondents may over-represent participants whose experience of the CRTP was positive. A telephone follow-up survey of 20 randomly selected participants suggests that the majority of nonresponders did not receive the survey due to incorrect contact information. Another limitation is that being a chief resident may itself lead to improvement areas such as conflict management and awareness of one's own personality, independent of participation in CRTP. Alpert et al.[29] found that physicians who were former chief residents were more likely to hold professional leadership roles. It would be of interest to know whether those who attended the CRTP are more likely to go on to hold additional leadership positions or attend additional leadership training activities compared to chief residents who did not receive this training. An added limitation of the survey of program directors and department chairs is that respondents have no way of knowing how the chief residents would have functioned if they had not attended the course.

Conclusions

Our study demonstrates a significant positive impact of the CRTP on most participants, both self-reported and in the perception of program directors and department chairs. CRTP, by increasing the leadership skills of chief residents, contributes to residency program improvements that lead to more positive experiences for residents and programs and institutions, in the short term and long term. Program directors and department chairs believe training has a positive impact at the organizational level as well. Investment in experiential leadership training should be considered for physicians in other medical specialties and settings and in various leadership positions, in order to address the call for effective physician leadership of needed changes in the delivery of medical care.

Expansion of experiential training activities in areas of self-awareness, communication styles, conflict management, feedback, and awareness of group process, to medical leaders in other specialties and at lower and higher levels of training would be valuable. Vehicles should be developed to make such training easily accessible and appealing to physicians. This would help address the need for effective physician leaders.

References

1 Hersey P, Blanchard KH. *Management of Organizational Behavior: Utilizing Human Resources*. 6th ed. Englewood Cliffs, NJ: Prentice Hall; 1993.
2 Weisbrod MR. *Productive Workplaces: Organizing and Managing for Dignity, Meaning and Community*. San Francisco, CA: Jossey-Bass; 1987.
3 McCauley CD, Moxley RS, Van Velsor E, Eds. *The Center for Creative Leadership Handbook of Leadership Development*. San Francisco, CA: Jossey-Bass; 1998.
4 Kouzes JM, Posner BZ. *The Leadership Challenge*. 3rd ed. San Francisco, CA: Jossey-Bass; 2003.
5 Deming WE. *Quality, Productivity and Competitive Position*. Cambridge, MA: MIT Press; 1982.
6 Walton M. *The Deming Management Method*. New York, NY: Putnam; 1986.
7 Walton M. *Deming Management at Work*. New York, NY: Pedigree Books; 1991.
8 Berwick DM, Nolan TW. Physicians as leaders in improving health care: a new series in annals of internal medicine. *Ann Intern Med*. 1998;Feb 15; 128(4):289–92.
9 Berwick DM. Eleven worthy aims for clinical leadership of health system reform. *JAMA*. 1994;Sep 14;272(10):797–802.

10 Berwick DM. TQM: redefining doctoring. *Internist*. 1993;Mar;34(3):8–10.
11 Berwick DM. Disseminating innovations in health care. *JAMA*. 2003;Apr 16;289(15):1969–75.
12 Batalden PB, Nelson EC, Edwards WH, Godfrey MM, Mohr JJ. Microsystems in health care: part 5. How leaders are leading. *Jt Comm J Qual Saf*. 2003;Jun;29(6):297–308.
13 Reinertsen JL. Physicians as leaders in the improvement of health care systems. *Ann Intern Med*. 1998;128:833–8.
14 Cocowitch VA, Fickenscher KM. *The Turnaround Imperative: A Leader's Guide for Survival in a Turbulent Health Care Environment*. Tampa, FL: American College of Physician Executives; 1996.
15 Institute of Medicine (US), Committee on Quality of Health Care in America. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press; 2001.
16 Harvard Macy Institute. Programs: Leaders in Healthcare Education. Available at: http://www.harvardmacy.org/Programs/Overview.aspx#54, Accessed April 19, 2010.
17 Reinertsen JL. Taking responsibility for closing the holes. *Healthc Pap*. 2001;2(1):10–31.
18 Batalden P, Splaine M. What will it take to lead the continual improvement and innovation of health care in the twenty-first century? *Qual Manag Health Care*. 2002;Fall;11(1):45–54.
19 Williams SJ. Training needs for physician leaders. *J Health Adm Educ*. 2001;Spring;19(2):195–202.
20 Doughty RA, Krantz J. Teaching fundamentals in group and interpersonal relations. An intervention designed to enhance resident learning and productivity and the quality of work life. *Am J Dis Child*. 1985;Dec;139(12):1206–10.
21 Doughty RA, Williams PD, Seashore C. A Chief Resident Training Program: Developing Leadership Skills for Future Medical Leaders. *Am J Dis Child*. 1991;145, 639.
22 Benne KD, Bradford LP, Gibb J, Lippitt R, Eds. *The Laboratory Method of Changing and Learning*. Palo Alto, CA: Science and Behavior Books; 1975.
23 Benne KD. *The Task of Post-Contemporary Education: Essays in Behalf of a Human Future*. New York, NY: Teachers College Press; 1990.
24 Jones JE, Pfeiffer JW, Eds. *Introduction to the Structured Experiences Section, in The 1980 Handbook for Group Facilitators*. San Diego, CA: University Associates; 1980.
25 Palmer AB. *Learning Cycles: Models of Behavioral Change. in The 1981 Handbook for Group Facilitators*. San Diego, CA: University Associates; 1981.
26 Kolb DA. *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, NJ: Prentice-Hall; 1984.
27 Westberg J, Jason H. *Fostering Learning in Small Groups: A Practical Guide*. New York, NY: Springer Publishing Co.; 1996.
28 Wasserman IC, Doran RF. *Creating Inclusive Learning Communities, in Reading Book for Human Relations Training*. 8th ed. Alexandria, VA: NTL Institute; 1999.
29 Alpert JJ, Levenson SM, Osman CJ, James S. Does being a chief resident predict leadership in pediatric careers? *Pediatrics*. 2000;Apr;105(4 Pt 2):984–8.
30 Kirkpatrick DL. Evaluation. In: Craig RL, ed. The ASTD training and development handbook. New York, NY: McGraw-Hill; 1996:294–312.
31 Kirkpatrick DL. *Evaluating training programs: The four levels*. 3rd ed. San Francisco, CA: Berrett-Koehler Publishers, Inc.; 2006.
32 The Future of Pediatric Education II. *Pediatrics*. 2000;105(suppl):161–212.
33 Knowles M. *The Adult Learner: A Neglected Species*. 3rd ed. Houston, TX: Gulf Publishing Company; 1984.
34 Senge PM. *The Fifth Discipline: The Art & Practice of the Learning Organization*. New York, NY: Doubleday; 1990.
35 Kotter JP. *Leading Change*. Boston, MA: Harvard Business School Press; 1990.
36 Frankford DM, Patterson MA, et al. Transforming practice organizations to foster lifelong learning and commitment to medical professionalism. *Acad Med*. 2000;Jul;75(7):708–17.
37 Thomas NK. Resident Burnout. *JAMA*, 2004;292;2880–2889.
38 Bellini LM, Baime M, Shea JA. Variation of mood and empathy during internship. *JAMA*, 2002;287(23):3143–3146.
39 Shanafelt TD, Bradley KA, Wipf JE, Back AL. Burnout and self-reported patient care in an internal medicine residency program. *Ann Int Med*. 2002;136:358–367.
40 Purdy RR, Lemkau JP, Rafferty JP, Rudisill JR. Resident physicians in family practice: who's burned out and who knows? *Fam Med*. 1987;19:203–208.