



*The Goal is **Trans***

By Lynn Selhat

Photographs by Candace diCarlo

Even today, women in academic medicine are severely underrepresented in the ranks of tenured professors and in leadership positions. Achieving equity is a not-so-simple matter of changing the culture of medical schools. A recent grant will help Penn investigators explore strategies for doing exactly that.

formation

Walking through the hallways of Penn's medical school, a visitor would find that much has changed in the past 30 years or so. The hospital has expanded significantly, the once-omnipresent beeper has been replaced by the cell phone, and computers are just about everywhere. But perhaps the most striking change is the make-up of the student body. Back then, nearly 70 percent of the young folks walking around in starched white coats were men. Today, it's evenly divided. In 30 short years, women have made tremendous gains in medicine, not just at Penn but across the nation.

That makes it even more perplexing that women who pursue a career in academic medicine seem to be hitting a glass ceiling (or "sticky floor," as some have characterized it). Indeed, national data indicate that women in academic medicine are less likely to attain promotion and tenure than their male colleagues; are significantly underrepresented in leadership positions; and are overrepresented in junior faculty ranks.¹ Studies that have compared men and women in academic medicine have also confirmed that women are not advancing at the same pace as their male colleagues.² One study found that after roughly 11 years on a medical school faculty, 59 percent of women had achieved the rank of associate or full professor rank. For men, it was 83 percent. Only 5 percent of women, compared with 23 percent of men, had achieved full professor.³

For years, most observers believed that the problem was in the pipeline and that as more women entered academic medicine,

there would be just as many women senior professors and academic leaders as men. That prediction was not borne out. Instead, during the same period (1985-2005) that women's representation in American medical schools jumped from 34 percent to 50 percent, the percentage of all women faculty at the full professor rank increased by a mere 1.6 percent, from 9.9 percent to 11.5 percent. Now that the pipeline theory has been debunked, the problem appears deeper and more entrenched than was originally thought.

Although the statistics clearly show that women lag in academic medicine, the reasons are not so evident. Some schools of thought identify conscious and unconscious biases. Other research has shown that women have fewer opportunities to be mentored than men, whose career trajectories in academic medicine occur more naturally from the start within a diverse and easily accessible network of professional alliances. Still other observers point to family responsibilities, which traditionally weigh more heavily on women than on men.

Stephanie Abbuhl, M.D., vice chair and associate professor in the Department of Emergency Medicine at Penn, uses the metaphor of "a thousand pounds of feathers." There is no single problem that is holding women back, says Abbuhl, who also has served as executive director of FOCUS on Health & Leadership for Women since 2001. Instead, it appears to be an accumulation of seemingly small barriers over time. Just as important as understanding why the

problem persists, she says, is understanding what can be done about it. More specifically, she wonders whether it is possible to create an environment where women can succeed fully in their careers, thus making the most of their contributions to academic medicine and improving the workplace for all faculty, both men and women.

This puzzle is the reason for a \$1.3 million grant the National Institutes of Health awarded last year to Abbuhl and Jeane Ann Grisso, M.D., M.Sc., professor of public health in the Department of Family Medicine and Community Health and joint principal investigator. The N.I.H.-T.A.C. Trial (“Transforming Academic Culture”) is a first of its kind in terms of scope and magnitude. With enthusiastic support from Arthur H. Ruben-

stein, M.B.,B.Ch., dean of the School of Medicine and senior vice president of the University of Pennsylvania for the Health System, all eligible departments and divisions in the school, as well as the junior women faculty, have been randomly assigned to intervention groups or control groups. The intervention, involving 13 different departments and divisions, operates at three levels: junior women faculty, senior leaders, and groups of men and women faculty working in task forces to make recommendations and implement institutional change.

“It is time for us to apply our best scientific rigor to interventions that can deepen our understanding of the factors that influence women’s careers in science while making a difference through action-based research,” Abbuhl and Grisso wrote

in their N.I.H. proposal. Additional financial support has been provided by Dean Rubenstein and Ralph Muller, CEO of Penn’s Health System, as well as by Steven M. Altschuler, M.D., president of the Children’s Hospital of Philadelphia, and Alan R. Cohen, M.D. ’72, G.M.E. ’76, chair of the Department of Pediatrics. These funds will strengthen and deepen specific aspects of the trial in what is the first large-scale study of interventions aimed at women in academic medicine.

Why Penn?

Penn took the lead on this topic in the late 1990s with FOCUS on Health & Leadership for Women, founded in 1994 by Grisso, then associate professor of medicine. Originally set up to help fill the large gaps in knowledge about women’s

Without Change, Who Loses Out?

Why does it matter that women in academic medicine are not advancing at the same rate as their male colleagues? In other words, who loses out? This is a question that Stephanie Abbuhl, M.D., welcomes because the answer is quite stunning. The answer, in short, is “everybody.” In the first place, says Abbuhl, talent is lost. There is a strong business case for dealing with gender inequality in any workplace. After hearing an interview with Barry Salzberg, the CEO of Deloitte LLP, Abbuhl realized the win-win potential for advancing women in medicine. The firm, ranked as a worldwide leader in the consulting marketplace, is perennially a “top employer,” consistently landing on *Fortune’s* annual 100 Best Companies to Work For and on *Working Mother’s* 100 Best companies. On numerous occasions, Salzberg has stated that

Deloitte’s commitment to women and minorities is “non-negotiable,” even during these tough economic times. “If you don’t create the environment that allows and encourages women and minorities to join you and stay with you, you’ll lose the war for talent.”⁴

Donna Shalala, Ph.D., who served as Secretary of Health and Human Services under President Clinton, says that the problem affects our national competitiveness. In a 2006 report on how to maximize the potential of women in academic science and engineering, Shalala urged an end to “the needless waste of the nation’s scientific talent.” She emphasized that the United States now faces increased competition from other nations in the fields of science and engineering. “We urgently need to make full use of all of our talent to maintain our nation’s leadership. Af-

ording women scientists and engineers the academic career opportunities merited by their educational and professional achievements must be given a high priority by our nation.”⁵

These sentiments are shared by Arthur Rubenstein, M.B.,B.Ch., dean of the School of Medicine. In 2002, Rubenstein served on a committee of the Association of American Medical Colleges that examined the status of women’s leadership in academic medicine. In the pages of this magazine, he asserted, “Medicine and science have not realized and are not currently realizing the full value of their investment in women.” He went on to say that “the leadership potential of most women [in academic medicine] continues to be wasted,” a situation he characterized as a “collective loss” that we can ill afford in the face of dwindling resources.⁶



Heading the T.A.C. trial are Jeane Ann Grisso, M.D., M.Sc., left, and Stephanie Abbuhl, M.D.

health, FOCUS broadened its mission in 1997 to deal with the persistent “glass ceiling / sticky floor” problem for women in academic medicine. With its stated goal of recruiting, retaining, and promoting women faculty at the medical school, FOCUS has been the conduit for tackling the “thousand pounds of feathers” that have prevented women at Penn Medicine and at other American medical schools from realizing their full potential.

The program’s many initiatives over the past 16 years include mentoring programs; faculty development sessions; writing programs for junior faculty; an annual leadership mentoring conference; an extramurally funded program that allows FOCUS to offer medical student research fellowships and junior faculty investigator grants in women’s health. For benchmarking purposes, it has also collected and organized data on gender distributions of medical faculty by rank, academic track, and department across the medical school, and compared them to the national statistical averages pub-

lished annually by the Association of American Medical Colleges.

According to Abbuhl, the results have been promising. For example, FOCUS has sponsored a manuscript-writing course

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for junior faculty, developed by two senior faculty members, Karin McGowan, Ph.D., and Seema Sonnad, Ph.D. Abbuhl notes that the course has been enormously helpful. Not only is scientific writing not taught

in medical school, but there has been little guidance on how to get a manuscript published despite the fact that publications are critical for promotion at Penn. The course covers such topics as picking the right journal, writing an abstract, and resubmitting manuscripts. Publications by the participants have increased dramatically, and they report that the course stimulates collaboration with other faculty members and provides support. For these reasons, Abbuhl and Grisso have included this training as a central component in the multifaceted controlled trial. Indeed, there is a strong overlap between FOCUS and the N.I.H. trial, and Patricia Scott, the FOCUS director of operations, serves as project manager for the trial.

The Intervention

Typically, randomized trials in medicine compare two groups: a treatment group that receives a specific treatment (e.g., a drug, a surgical intervention, a new treatment protocol) and a control group that receives no intervention. Because Abbuhl and Grisso wanted to measure institutional change as well as how the interventions affect a particular group of individuals (women faculty), they chose to conduct a cluster randomized trial in which the eligible departments or divisions in the School of Medicine were randomly assigned to intervention or control status. Data are collected from both groups throughout the four-year trial.

The N.I.H.-T.A.C. trial interventions are multi-level, meaning that interventions target different levels in order to achieve lasting changes in institutional culture and practices. The different levels include junior women faculty, faculty and administrative members of intervention department/divisions, and senior leaders.

Junior women faculty in the intervention group take part in two major programs: the Manuscript Writing



Grisso, Abbuhl, and their team will gather facts and apply “our best scientific rigor” to the T.A.C. interventions.

Group (mentioned above) and the Total Leadership program, developed and run by Stewart D. Friedman, Ph.D., of the Wharton School. His program is geared to help professionals improve their performance in all parts of their lives (see “Leadership in All Parts of Life”). At the end of four years, Abbuhl, Grisso, and their team will evaluate the trial. That will involve comparing the intervention group and the control group of junior women faculty on many outcomes, including their intention to stay in academic medicine, their job satisfaction, and their perceptions of how supportive their department or division environment is. In addition, the investigators hope that the junior women faculty in the intervention group will demonstrate greater academic productivity, as measured by grants received and articles published.

In each intervention department or division, senior leaders have appointed task forces (13 of them in all). They are charged with developing recommendations for change at all levels, from the local en-

vironment of the department/division to the School and University. Each task force was scheduled to meet five times. After a kickoff orientation session in mid-September, there were three department- or division-specific meetings during the fall semester. A joint dissemination session will take place on January 31. In the remaining 2 1/2 years of the trial, more meetings will be scheduled to monitor progress.

The goal of the task forces is to think as creatively as possible about experiments, both large and small, that have the potential to improve the environment. Each task force meeting will be facilitated by Josef Reum, Ph.D., associate professor and interim dean at the George Washington University School of Public Health and Health Services. Susmita Pati, M.D., and Emily Conant, M.D., of Penn Medicine are overseeing the task force initiative and have worked closely with Reum to plan the process of generating ideas for change. Outcomes will measure how productive the particular department or division has been and how the recom-

mendations are implemented over the three-year follow-up period.

Senior leaders – department chairs and division chiefs – will oversee the implementing of the task forces’ recommendations and work together to achieve high-priority institutional changes throughout the school. Over the four years, Abbuhl, Grisso, and other members of the study team will be holding intervention group meetings with senior leaders to discuss their goals, the barriers to change, and potential solutions. The investigators will interview the senior leaders to track which goals were met.

Over the next three years, Abbuhl and Grisso will keep a national advisory committee involved in the process through updates and progress reports. Dean Rubenstein will chair the committee, which comprises leaders in academic medicine and experts in institutional change. Amy Gutmann, Ph.D., president of the University of Pennsylvania, is a member of the committee. As needed, members may be asked to advise on specific areas of the study.

Abbuhl and Grisso are convinced that, by the end of the trial, they will have strong evidence of effective strategies to influence the institutional culture and to take steps toward closing the gender gap in academic medicine. What’s more, if the model proves effective, the results will be shared with medical schools across the nation. Women will not be the only beneficiaries. According to Abbuhl and Grisso, interventions that help women advance and achieve their full potential in academic medicine are likely to help men as well. Increasingly, men are facing the same kind of family pressures that have traditionally affected women. And any changes that help women do better will likely bring positive changes to entire institutions. The ultimate beneficiaries of such a transformation will be professors, students – and patients. ♥

Stewart D. Friedman, Ph.D., is often referred to as “the work/life balance guy.” But for the founding director of The Wharton School’s Leadership Program and its Work/Life Integration Project, this moniker doesn’t sit so well. The problem with “balance,” says Friedman, is that it implies tradeoffs or sacrifice.

Instead, Friedman’s approach is one of *integrating* what he considers the four key aspects of one’s life: work, home, community, and self (mind, body, and spirit). His research has shown that integration is possible if people begin to think differently about how the four might fit together and then act on this knowledge. His Total Leadership course, which is based on his best-selling book, *Total Leadership: Be a Better Leader, Have a Richer Life* (Harvard Business School Publishing, 2008), is one of the major interventions for junior faculty women at Penn Medicine during the “Transforming Academic Culture” trial.

The program offers participants a structured way to identify what and who are most important to them, to find out what the people in their lives expect of them, and to recognize where their time and energy are spent.

Armed with this knowledge, participants then run experiments to try to find ways to improve all four aspects of their lives. An experiment might involve working from home one half-day per week and monitoring how this change affects

outcomes at work, at home, in the community, and for the private self. Another experiment might be delegating more and observing its effect on one’s productivity and life beyond work.

Friedman has used the process for more than 10 years with groups from all over the world and in various industries. Participants of Total Leadership often attribute quantifiable dollar results to the program (e.g., savings through greater efficiencies) as well as more qualitative results like improved relationships with customers and colleagues, greater satisfaction with one’s job, and less stress. Perhaps most important, participants gain confidence and competence as leaders of sustainable change – sustainable, that is, because it works not just for one’s work but for all those who matter.

Friedman became involved with Penn Medicine two years ago when leaders of FOCUS approached him to discuss the possibility of using Total Leadership within the context of academic medicine. Lucy Wolf Tuton, Ph.D., director of professional development for FOCUS, notes that it was looking for an innovative approach to address the issues of gender equity in academic medicine.

“We were so fortunate that Richard Shannon, M.D., chair of the Department of Medicine, agreed to pilot the program in his department,” says Tuton. In all, 14 faculty members (10 women and 4 men) took part. According to Tuton, the siloed

nature of academic medicine can leave faculty feeling disconnected. “Total Leadership gave this group of junior faculty a unique opportunity to step back and reflect on what they’re doing and why they’re doing it,” she explains. As a result of this “mini pilot,” FOCUS felt confident that the program would be a strong intervention to test on a larger scale as part of the N.I.H. Trial.

Up to 60 junior women faculty will complete Total Leadership training, while roughly the same number, not in the course, will serve as the control group. Both groups will complete questionnaires to test two main hypotheses. The first is that, compared to the control group, junior women faculty in the intervention departments and divisions will report greater increases in job satisfaction, commitment to the job, and job self-efficacy, as well as a lessening of work-family conflict. The second hypothesis is that women in the Total Leadership program will report greater increases in performance and quality of life and will be more committed to staying than those in the control group.

Friedman believes medical faculty are particularly receptive to the program because of its “trial and error” approach, which is similar to the scientific method. “It works because the process compels participants to find solutions for themselves,” he says. “I don’t come in with the answers.”

Notes

¹ *Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering*, National Academy of Sciences, National Academy of Engineers, Institute of Medicine. Washington, D.C.: National Academies Press, 2006.

² “Women Physicians in Academic Medicine: New Insights from Cohort Studies,” by L. Nonnemaker. *New England Journal of Medicine*, 2000; 342: 399-405.

³ “Promotion of Women Physicians in Academic Medicine: Glass Ceiling or Sticky Floor?” by B. J. Tesch, H. M. Wood, A. L. Helwig, and A. B. Nattinger.

Journal of the American Medical Association, 1995; 273: 1022-5.

⁴ Barry Salzberg, interview with *Leaders Magazine*. 2010, Volume 33, Number 1.

⁵ *Beyond Bias and Barriers*, p. 13.

⁶ “Needed: More Women as Leaders in Medicine,” *Penn Medicine*, Winter 2003.