

# A Female Faculty Development Program for Radiology

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## INTRODUCTION

The results of the 2015 ACR Workforce Survey confirm that women remain underrepresented in leadership positions in radiology. Within the aggregate of academic and private practice, 14% of all men are leaders and only 7% of all women are leaders [1].

National data reveal that within academic radiology practices, women are underrepresented among senior faculty ranks, are less likely to hold tenured positions, and are less likely to be in departmental leadership roles [2]. Among full radiology professors, only 19% are women, and among all radiology department chairs, only 16% are women [3,4].

Although women and men are represented in equal numbers at the assistant professor level, women do not advance through the ranks at the same pace as men, and many remain at the assistant professor level for their entire careers [5].

The reasons for these disparities are unclear and are likely multifactorial. It is reasonable to assume that when environments are designed for people to succeed, such disparities in academic advancement should diminish.

Academic advancement of women is, of course, important for personal career satisfaction, but it has benefits for our profession and

for the health of our patients. Research on race, gender, and partnership between patients and physicians revealed that improved cross-cultural communication and access to a diverse group of physicians yields higher quality of care and better health outcomes [6]. From an institutional perspective, adequate female representation in the higher ranks is needed to maintain institutional diversity of perspective and talent, which ultimately contributes to organizational success. Cultivating a more diverse leadership with female representation is critical to improving problem-solving techniques, the effectiveness of education methods, and the quality of service [5].

The Vanderbilt Department of Radiology acknowledges the lack of women in upper academic ranks and in leadership roles and supports a Women in Radiology initiative, which promotes a departmental culture supportive of career advancement of female clinicians. A key component of this initiative is our Female Faculty Development Program, designed with the goal of developing knowledgeable, successful, confident women prepared to achieve career success and assume leadership positions.

## WHAT WE DID

Data from the Association of American Medical Colleges Faculty

Forward Engagement Survey suggests that the following are beneficial for female faculty members to be successful:

- clear expectations about the role and path of advancement,
- an equitable and diverse workplace, and
- access to opportunities for development and advancement [4].

Our Female Faculty Development Program has been structured to offer these opportunities and meet predetermined needs of the women in the Department of Radiology. We obtained preliminary data through a comprehensive needs assessment survey to measure the perceptions of gender equality, faculty needs for research and teaching, and perceived barriers to advancement of the female faculty members within the department. This web-based survey was composed of seven sections: demographics, perceptions of gender equality, work-life balance issues, perceived obstacles to career advancement, faculty development needs, research needs, and teaching needs. The survey was administered via e-mail distribution to both the clinical and research female faculty members within the Department of Radiology. The results of this needs assessment survey allowed us to

identify the greatest perceived barriers to the career advancement of female faculty members within our department. The two most significant barriers to advancement identified by this survey were understanding of promotional guidelines and lack of mentorship.

Using the feedback collected in our needs assessment, we designed a series of approximately 14 reproducible educational modules to meet the predetermined needs of the faculty. Several of the topics were adapted from workshop topics presented at an American Association of Medical Colleges (AAMC) Junior Women Faculty Development Seminar (December 2-5, 2000) [7]. Topics include, but are not limited to, the following:

1. Understanding of Promotional Guidelines
2. Enhancing Your CV
3. Developing Your Educational Portfolio
4. Work Life Balance
5. Time Management and Organizational Skills
6. Meeting the Challenges of Academic Career Building
7. What's Holding You Back?
8. Clinical Investigation
9. Writing/Reviewing for Professional Journals
10. Writing Proposals and Winning Research Grants
11. Conflict Management
12. Moving Into Administrative, Leadership, and Policy Making Roles
13. Maximizing Your Professional Advancement Options
14. The Art of Self Promotion

Each educational module consists of the following:

- Pre- and postmodule knowledge assessment surveys: Anonymous

surveys are performed to measure improved knowledge in the targeted area of the module and to offer an opportunity for feedback.

- **Distribution of written materials:** Written materials are distributed to design a reproducible, sustainable curriculum. These materials also offer an opportunity to communicate with the faculty members unable to attend the scheduled discussion. The materials are distributed via e-mail and posted to a website accessible to the faculty members.
- **Discussion:** The discussion sessions are offered in the setting of social events with an expert speaker (from both within and outside the institution) on the chosen topic. We have found that hosting these meetings in the evening allows the most faculty members to attend. Food and beverages are provided.

In addition to increasing knowledge, these educational meetings serve as an opportunity for women in the department to network. Junior and senior faculty members who otherwise might not cross paths are able to engage in meaningful conversations. This interaction allows us to establish a means to strengthen intradepartmental mentoring.

## OUTCOMES

To date, three modules have been completed: Understanding of Promotional Guidelines, Developing Your Educational Portfolio, and Writing/Reviewing for Professional Journals. Preliminary pre- and post-survey data demonstrate increased knowledge in targeted areas for each module. Feedback has been overwhelmingly positive.

Although long-term successes such as female faculty members' promotion and retention rates, female faculty members' prevalence in leadership roles, and the impact on the culture and climate of the organization will not be evaluated for several years, short-term outcomes to date are quite favorable: two faculty members have been successfully promoted, one has been awarded her first grant, one has had a first scientific abstract accepted, one has accepted a leadership role in alumni relations, and one has decided to pursue a seminar to assist in mid-career transition to leadership.

We hope that these efforts will expand the pool of female radiologists prepared to assume leadership positions, with the added benefit of building a pipeline to recruit female medical students. Increasing the number of successful female leaders in radiology has the potential to positively influence female medical students' career choices regarding radiology residency. A prior analysis of female medical students' interest in radiology careers demonstrated that effective role models had a direct, positive influence on interest levels in radiology careers [8]. Similarly, female role models have been shown to largely determine women's career choices in the subspecialties of internal medicine and surgery [9,10]. We believe a sustainable female faculty development program has the potential to narrow the gender gap in radiology.

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