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A framework for faculty development programming at VA and non-VA Academic Medical Centers

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Abstract

VA and non-VA Academic Medical Centers (AMCs) serve as training environments for learners from many different professions and academic affiliates, including regional medical campuses. Faculty members at these AMCs need programming to help create and enhance the educational environment for learners. In this paper, we provide a framework for AMCs to develop and implement faculty development programming and provide a case example of how this programming was implemented at one VA AMC. It is the hope that this framework and programming can be adopted by other AMCs to provide faculty members with the programming needed to sustain high quality training environments.

The Department of Veterans Affairs (VA) is the largest training environment for healthcare professionals in the United States. In 2016, over 127 000 learners trained at VA Medical Centers, including over 43 000 medical trainees.¹ The VA has affiliation agreements with over 90% of American medical schools¹, and about 30% of all medical residents in the United States rotate through VA Medical Centers on an annual basis.² Further, the VA has relationships with over 1800 training programs that span more than 40 health professions³, and include many regional medical campuses (RMCs). This large investment to train the next generation of healthcare professionals is directly related to their recruitment to the VA workforce. For example, 60% of VA physicians and approximately 70% of both VA optometrists and psychologists trained at the VA prior to their VA employment.¹

The VA Boston Healthcare System (VABHS) educates a large number of trainees, with over 3200 educated in 2016. The VABHS is affiliated with over 350 training programs, over 100 affiliates, and has more than 500 faculty members. To support this large number of trainees, VABHS training program directors and faculty members need the following: training and support to use evidence-based teaching techniques, professional opportunities to develop as educators, a forum to share best practices as a community of educators, and a mechanism to develop a network of

educators. However, in 2012 the VABHS — like most other VA and non-VA Academic Medical Centers (AMCs)^{4,5} — lacked a structured approach to developing and implementing faculty development programming. We initiated several successful faculty development programs, but the programs were not held on a regular basis and were not based on the specific needs of the faculty or the Medical Center. Recognizing the need for a more strategic, organized approach, we worked to create a framework to conceptualize the different components required for comprehensive faculty development programming. Use of a strategic framework can provide faculty at AMCs with the knowledge and training they need to properly teach and supervise trainees in today's interprofessional healthcare environment, and to facilitate educational improvements and innovations in the future. We hope that our experience at VA Boston can be helpful in the successful implementation of faculty development programming at other AMCs, including those training learners from RMCs.

The Need for Faculty Development Programs Nationally:

Faculty members need initial and ongoing training on teaching, supervising, and evaluating healthcare professional trainees.⁶ Currently, low percentages of faculty members report receiving training in effective teaching strategies, providing meaningful feedback to trainees, assessing learner

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performance, and teaching on interprofessional teams.⁷ For example, only 33% have received training in mentoring skills, 47% in how to use role play, 37% in time management, and 50% in outpatient precepting.⁶ These low percentages highlight the need for continued and sustained faculty development programming.

Faculty Development Programs are Beneficial:

Although there are not enough faculty development programs, when such programs are provided they are generally found to be beneficial and effective. A systematic literature review showed that faculty members were satisfied with faculty development programming and believed the program content was useful and relevant to their teaching.⁸ As a result of participating, they experienced increased positive attitudes towards faculty development and teaching, increased knowledge of educational principles, greater establishment of faculty networks, and positive changes in teaching behavior (as identified by faculty and students).⁸ Further, teaching effectiveness increased as a result of participation.^{8,9}

In addition to providing benefit to teachers and students, faculty development programs also provide direct and indirect financial benefits to the AMC.¹⁰ Indirect benefits include decreasing employee turnover. Employee turnover can be costly, as cost estimates for replacing one faculty member range from \$250 000¹¹ to \$400 000.¹² High turnover is linked to decreased employee morale and decreased productivity.¹³ Faculty development programs increase job satisfaction and faculty retention, particularly of female and minority faculty members.^{11,14} Such benefits are long lasting, with one study finding benefits for up to two years following participation in a program.¹⁵ Faculty development programs may also directly financially benefit the AMC through increased external grant funding.^{14,16}

Faculty development programs also lead to increased patient safety, satisfaction with care, quality of care, and the potential of reduced malpractice claims, all of which financially impact the AMC.^{17,18} For instance, when faculty members teach learners more effective strategies to communicate with patients, it can result in increased

patient adherence to treatment and a reduction in patient symptoms.¹⁹ This result, in turn, may lead to higher quality patient care and increased patient satisfaction with medical services received, decreased hospital re-admissions, decreased medical errors, and reduction of unnecessary procedures and medications.

TRAIN FRAMEWORK:

The current paper proposes a framework for faculty development programming at AMCs focused on five areas: **T**eaching, **R**esearch, **A**wards, **I**nterprofessional education, and **N**etworking (**TRAIN**). The framework was developed based on a review of the AMC faculty development programming literature, a review of programming content at VABHS academic affiliates, consultation with VABHS educational leaders, and formal and faculty needs assessments.

Teaching

A primary focus of **TRAIN** is to improve the quality of teaching and supervision. Multiple skills to improve teaching are identified in the literature.^{4,8,9} These teaching and supervision skills include both core teaching competencies (e.g., providing feedback to learners, using evidence-based teaching techniques, faculty career development) and newer teaching competencies (e.g., interprofessional education, quality improvement).

For example, faculty development programming can help training directors and faculty members assess trainee competencies through traditional assessment methods, such as observation and examination, or newer methods, including learner portfolios and reflective exercises.^{20,21} Faculty development programming can also provide feedback to educators on their teaching and provide coaching to integrate new approaches to teaching and supervision. This programming might include how to use trainee feedback to improve future teaching.²²

Faculty development programming also helps educators teach emerging topics to meet the needs of trainees in certain educational and clinical settings. For example, as the VA increases the number of trainees in rural areas, faculty will need

instruction to teach topics of specific importance for rural and community health trainees. These topics include cost-effectiveness, health literacy, the use of health information technology to improve the health of individuals and populations, leadership skills and innovation, practice redesign, and quality improvement.^{23,24}

Research

Educational research is an important component of *TRAIN*. Research is needed to develop and assess faculty development programming, teaching strategies, and assessments of learning, among other valuable topics. AMC's benefit from this research in a number of ways, including improvement to educational programming. Increased faculty publications may raise the AMC's visibility and prestige, and may result in increased grant funding and clinical revenue.^{14,25} Greater prestige and focus on education may also increase donor financial contributions to the AMC.²⁵

Faculty development programming and consultation are needed to support faculty education research agendas to achieve these benefits.²⁶ Programming can teach faculty how to write research grants, manage a research lab, supervise educational research fellows, present their research, and submit articles for publication in academic journals.^{11,14,16,27} Programming can provide individual and group research mentoring. Seed grants can facilitate the development of educational and other research projects.^{11,14,16} Further, programming can be targeted to meet the needs of an individual AMC. This could include a focus on research to improve medical practice, and education, both needs at AMC's and RMC's²⁸.

Awards

Educational awards increase the profile and value of educational excellence and recognize faculty for educational achievements.²⁹ Awards could be designated for faculty who excel in teaching, mentoring, educational research, or other educational areas. In a survey of faculty members who received awards, nearly all reported the award was personally valuable to them.³⁰

In another study examining the impact of educator awards, faculty members reported that the awards had a positive impact on themselves and on the institution. Faculty members reported that the awards increased self-reflection on teaching, increased passion for teaching, improved teaching skills, and may influence promotion.²⁹ For the institution, faculty members reported that awards heightened the importance and recognition of teaching, increased recognition for the institution, and enhanced the teaching environment.²⁹

Interprofessional education

Healthcare is increasingly delivered by interprofessional healthcare teams, but trainees may have little prior experience working on these teams.³¹ This incongruity is due to outdated professional training models largely integrating learners from different professions later in their training experience or only after they are fully trained.³¹

As a result, faculty members need to teach trainees to provide both profession-specific (e.g., nursing) care and to work on interprofessional teams. Faculty development programming can help faculty members develop the skills and knowledge they need to teach trainees how to work on these teams. These skills include interprofessional teamwork, communication, values and ethics, and understanding each profession's roles and responsibilities for collaborative practice.³²

Networking

A core component of faculty development programming is to increase a sense of support and community among faculty educators by increasing networking opportunities.¹⁴ Participating in faculty development programming allows educators to interact with each other. Multiple studies have found that faculty development programming participants report developing meaningful relationships with other faculty members as a result of the programming.^{33,34} The use of technology, including listservs and social media platforms, can augment networking opportunities, allowing faculty members in different programs and at different AMC's to connect with each other.

Case Study: VA Boston Healthcare System

The VA Boston Healthcare System (VABHS) provides training for over 3200 health professions trainees each year. Prior to adoption of the *TRAIN* framework, there was no organized plan to coordinate VABHS faculty development programming.

We used the *TRAIN* framework to guide development and implementation of a variety of faculty development programs. The VABHS Academy of Health Professions Educators was established to coordinate and implement the *TRAIN* faculty development activities, with broader goals of improving the quality of health professions education and scholarship at the VABHS, and providing Veterans with greater access to high quality, well-trained health professionals.

Teaching

A needs assessment of the VABHS faculty members identified topics for programming to improve skills to teach and supervise. Academy programming includes the First Friday Faculty Development Presentation series, the VABHS Health Professions Education Symposium, faculty development programming within individual clinical departments, collaborations with the academic affiliates, and individual consultations with faculty members.

VABHS First Friday Faculty Development Presentation Series

The VABHS First Friday Faculty Development Presentation Series began in September 2014 and is held at 12:00 pm Eastern Standard Time on the first Friday of each month. Presentation topics focus on content areas core to educators, including strategies to provide feedback to learners, use spaced learning in education, increase critical thinking, use social media in education, and integrate cultural considerations into training and the provision of healthcare. Future talks will focus on interprofessional learning environments, technology in education, simulation in training, and educational research.

These presentations were initially developed as video conferences for VABHS faculty on the VABHS's three main campuses. Subsequently, VA

faculty members first regionally and then nationally expressed interest in participating. As a result, faculty members from all health professions at all VA AMCs nationwide and at VA affiliate health professions training programs at RMCs were invited to attend. Currently, faculty members participate in the presentations in person, via video-conference, teleconference, or an online conferencing program (Microsoft Lync).

In January 2017, Continuing Education (CE) credits were offered to faculty members for participation. From January 2017 to June 2017, faculty members nationwide earned 387 CE credits by participating in the VABHS First Friday Faculty Development Presentations. This includes 141 CE credits for nurses (36.43%), 86 CE credits for pharmacists (22.22%), 59 CE credits for physicians (15.25%), 34 CE credits for social workers (8.79%), and 26 CE credits for psychologists (6.72%). Other CE credits were earned by dietitians (6), speech pathologists (1), and occupational therapists (1).

As part of earning CE credits, participants were asked to complete satisfaction surveys about the presentations. Participants were asked to respond to nine questions on a five-point Likert scale, with higher numbers indicating greater agreement with the statement. Survey results are displayed in Table 1. Participants indicated that they believed the presentations were effective in teaching content, that they learned new knowledge, and can apply this knowledge in their teaching. Participants reported they were satisfied with the training activities. Further, participants found the content was presented in a fair and unbiased manner, the training environment was effective, and they would recommend the training to others.

Presentations are uploaded and archived on the VABHS education website, www.vabostoneducation.org. Uploaded files allow faculty members to access the materials at times that are convenient for them. Future plans include augmenting the online files with supplemental educational material, such as self-directed learning activities, to increase learning.⁸

Table 1.

	Jan	March	April	May	June
"Overall, I was satisfied with this learning activity."	4.28	4.33	4.32	4.24	4.28
"I learned new knowledge and skills from this learning activity."	4.54	4.24	4.28	4.14	4.26
"I will be able to apply the knowledge and skills learned to improve my job performance."	4.08	4.22	4.28	4.05	4.21
"The scope of the learning activity was appropriate for me learning."	4.38	4.28	4.32	4.10	4.21
"The training environment was effective for my learning."	4.38	4.24	4.23	4.19	4.21
"I would recommend this training to others."	4.44	4.35	4.23	4.10	4.16
"The learning activities were effective in helping me learn the content."	4.13	4.09	4.16	4.07	4.20
"The content of the learning activity was current."	4.59	4.37		4.31	4.37
"The content was presented in a manner that was fair and unbiased."	4.62	4.35	4.38	4.40	4.44

VABHS Health Professions Education Symposium

The VABHS Health Professions Education Symposium brings together faculty from different professions to discuss educational topics over the course of a half-day. The first symposium focused on strategies to provide feedback to trainees. The symposium featured an interactive lecture on best feedback practices, an experiential learning experience where participants role-played providing feedback, and a panel discussion on feedback with educational leaders at the VABHS. Future symposia will focus on core educational topics and include a research poster session for educators to share educational innovations.

Department faculty development efforts

In addition to the VABHS-wide programming, the Academy assists clinical departments in establishing their own faculty development programming to meet needs unique to their department. For example, the Academy works with and supports the Mental Health service in implementing faculty development programming specific to mental health educators. The VABHS Mental Health Service has a monthly faculty development talk focused on needs identified by the faculty.

Collaborations with educators at the academic affiliates

The Academy serves as a conduit for sharing information about faculty development programming at the VABHS and the academic affiliates. A faculty email listserv, VABHS Academy newsletter, and VABHS website advertises VABHS programming to both VABHS and affiliate faculty. Further, the VABHS consults with a number of affiliates in rural areas and at RMCs, which is essential to strengthen the relationship with community and rural health clinics.²³ These consultations are particularly important as the VA works to implement initiatives to increase the number of trainees in these settings.

Individual consultations for training programs

The Academy offers individualized consultation to VABHS training programs to help improve the training environment and to assist programs in meeting accrediting body requirements.

For example, Academy educators used a logic outcomes model to help one training program select appropriate data collection and assessment methods.³⁵ Consultations can also help programs submit funding proposals to initiate or expand training programs, create developmentally appropriate learning curriculum, recruit trainees and faculty members from diverse backgrounds, develop and assess an interprofessional learning curriculum, and develop education awards. These consultations are also offered to partner training programs at other VA AMS, RMCs, and affiliates.

Individual consultations for faculty members

The Academy provides individual consultation and mentorship to help faculty members develop as educators. The consultations may focus on improving specific teaching skills or on broader career development issues. Examples include focusing on improving specific teaching skills or aiding in course re-design. VABHS faculty members can also request audio, video, or peer review of their teaching and supervision.

Research

The Academy actively promotes educational research through a number of initiatives, including individual consultation, presentation opportunities, and assistance in applying for funding for educational research trainees. Academy staff consult with faculty to identify, write, and submit grants to internal and external funding agencies, such as the VA Office of Rural Health, The Josiah Macy Foundation, The Arnold P. Gold Foundation, and the Health Resources and Services Administration (HRSA).⁴ An example of a successful outcome of this effort is a Presidential Program Grant from The Gold Foundation awarded to one of the authors (DT) to teach and promote reflective practice and narrative medicine among VABHS trainees and faculty members.

This consultation extends to faculty members who are submitting research grants that include establishing a learning environment for trainees. Grant funding agencies are increasingly interested in proposals that include interprofessional education initiatives, such as developing learning curricula to integrate learners from different

professions and evaluating learning. The Academy mentors researchers to incorporate these educational objectives into grant submissions. For example, the VA Specialty Care Education Centers of Excellence and the Big Data Scientist Training Enhancement Program (BD-STEP) requests for proposals required submissions to identify how interprofessional clinical and educational models would be created and how learning would be assessed.

The Academy provides funding for faculty members to present their research at local, regional, and national educational conferences. The Academy also provides opportunities at the VABHS for faculty members to present their research. These opportunities include a research poster session at future VABHS Health Professions Education Symposia. Future First Friday Faculty Development Presentations, along with other Academy programming, will focus on research skills including grant writing skills and strategies to publish academic research.

The Academy also assists with proposal submissions to establish new research-oriented training programs. For example, the VA recently developed Health Professions Education Research Fellowships. The goals of this Fellowship include teaching educational program evaluation, assessment of learners and of learning, curriculum development, system improvement strategies, and the development of leadership skills. Academy staff consulted on a VABHS submission to develop one of these Fellowships.

Faculty development programming can also increase collaboration between clinical and educational researchers. An increasing number of clinical program grant proposals require applicants to include educators to help with the design and implementation of their novel clinical program at an AMC. Funding agencies are increasingly interested in interprofessional education initiatives, well-defined learning curricula that integrates interprofessional learners, and detailed plans to evaluate learning. For example, the VA Office of Patient Centered Care and Cultural Transformation Request for Proposals (RFP) required grant submissions to develop and integrate educational curricula. The VA Specialty Care Education

Centers of Excellence RFP required a plan to develop interprofessional educational activities and assess their efficacy. The VA Big Data Scientist Training Enhancement Program RFP required that an interprofessional didactic curriculum be integrated into the proposal.

Awards

The VABHS Academy Educator Awards recognize excellence in education. Award criteria are based, in part, on the national VA David M. Worthen Award for Career Achievement in Educational Excellence criteria. These awards highlight the unique contributions of educators and underscore the importance of the AMC's educational mission. Consistent with the interprofessional nature of the Academy, faculty members from all professions are eligible for the awards and members of the award selection committee reflect the diversity of health professions at VABHS. Award criteria includes significant achievements that have enhanced educational programs within the VABHS. This can include excellence in teaching, mentoring, educational research, training program and curriculum design, mentorship, interprofessional work, and educational innovations. It can also include leadership on national taskforces, accreditation bodies, or educational organizations, publications combining education, learning, and healthcare, or the implementation of educational innovations that influenced other programs over time.

Interprofessional Education

The Academy develops and implements interprofessional educational initiatives for trainees and faculty, including interprofessional training environments and the interprofessional Health Professions Training Program Director Collaborative Meetings.

Programming to initiate or enhance interprofessional education

The Academy sponsors initiatives to increase faculty members' skills and abilities to train interprofessional healthcare teams and supports the creation and enhancement of interprofessional training environments. The

monthly First Friday Faculty Development Presentation Series includes topics on interprofessional education. Academy leadership consults with training programs and clinical programs to integrate interprofessional learning activities into learning curricula. Individual consultations provide faculty members with a personalized learning plan to learn and enhance skills and abilities needed to provide this training.

The Academy provides support for several unique interprofessional clinical training initiatives. The Acute Rehabilitation Service Interprofessional Dedicated Education Unit is an interprofessional training environment where learners from multiple professions, including physician assistants, pharmacists, nurses, social workers, speech pathologists, and physical therapists, train together. Clinicians and trainees meet weekly to discuss interprofessional training and patient-centered care. Similarly, the Neurology Memory Disorders Case Conference and Clinic hosts trainees including physician assistants, pharmacists, nurse practitioners, neuropsychologists, medical students, and physicians, the latter including psychiatry interns, neurology and internal medicine residents, and fellows from the fields of geriatrics, neuropsychiatry, and behavioral neurology. The Academy supports protected staff time to develop and implement this programming.

The Harvard Medical School South Shore Psychiatry Residency Training Program integrates trainees from the VABHS Mental Health Nurse Practitioner Mental Health Training program to provide shared didactic classes and learning experiences, and co-presentation of clinical cases. These experiences help trainees from both programs learn skills to both provide mental health services and interact with an interprofessional treatment team to provide optimal care for Veterans.

VABHS Health Professions Training Program Director Collaborative meetings

Interprofessional education is discussed and promoted during the monthly interprofessional VABHS Health Professions Training Program Director Collaborative meetings. The agenda for these meetings includes a brief 5 minute discussion of administrative issues impacting all training

programs, a 25 minute presentation by a training program director on the profession, training program, and teaching innovations, a 20 minute active discussion of the training program and ways it can improve and collaborate with other programs, and a 10 minute teaching strategy identified in a recent education journal article.

Training Program Director Collaborative meetings began in April 2014. From April 2014 to June 2017, 36 training program directors have presented. As a result of the interprofessional nature of these meetings, it is the hope that training program directors are better able to understand other professions' history, clinical roles, and training model, and have the opportunity to network with educators from different professions. Trainees interested in education are also invited to attend.

Networking

The VABHS Academy develops programs to increase networking opportunities for educators. The monthly VABHS Health Professions Training Program Director Collaborative meetings allow training program directors to meet each other, identify commonalities among the programs and the director roles, develop ideas for joint educational programming, and form an educational community. The VABHS Health Professions Education Symposium and monthly First Friday Faculty Development Presentations provide opportunities for educators to network. A VABHS faculty listserv allows faculty members to share knowledge and resources, identify educator events at VABHS and at academic affiliates, and learn about educational initiatives and educational grants. The listserv currently has 126 members. An Academy newsletter allows for dissemination of information about various educational and faculty development and profiles VABHS faculty members and training programs. Future plans to connect faculty and form a community of VABHS educators include developing online forums and social media platforms (e.g., Twitter, Facebook).

Diffusion to other AMCs

AMCs need faculty development programs to ensure that high quality clinical training programs are developed and maintained, and that

trainees are retained as future clinical providers. The *TRAIN* model provides a framework of the components necessary for a comprehensive AMC faculty development program. The *TRAIN* model served as the basis for the creation of faculty development programming at the VABHS. AMCs and RMCs are encouraged to use this framework to develop and implement their own faculty development programming.

Dissemination of this programming is especially needed to help develop and enhance training experiences in areas where there is a shortage of healthcare professionals.² For example, as part of the Veterans Access, Choice, and Accountability Act of 2014 (VACAA), an additional 1500 physician resident trainee positions were created, with a significant portion of these new positions allocated to facilities under-represented in health professions education.² As these facilities are new to residency training, they will need support for their training program leadership and faculty members to teach these trainees. This support may not be readily available at their location, which poses a challenge to new training positions and programs.² Therefore, adopting the *TRAIN* framework, and partnering with other AMCs and RMCs who have also adopted this framework, will provide these new and expanded training programs the support they need to ensure a successful training environment.

As AMCs adopt the *TRAIN* framework, educators should evaluate the impact of programming on faculty knowledge, skills, and abilities, on learning environments, and ultimately, on clinical care for Veterans. Further, AMCs should measure the financial benefits of this programming to the AMC.¹⁴

AMCs are encouraged to use strategic planning strategies when encountering barriers to implementing the *TRAIN* framework. Barriers may include limited dedicated staff time to plan, develop, and implement programming and competing demands on faculty time to attend this programming, given their clinical, research, and administrative responsibilities.

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