A Professionalism and Mentoring Curriculum for Pathology Residents in Training

Michael J. Esposito, MD[1], Sudarshana Roychoudhury, MBBS[1], and Alice Fornari, EdD, RDN[2]

Abstract

Professionalism is a core Accreditation Council for Graduate Medical Education competency. The Mentoring and Professionalism in Training Program was developed to promote humanism in health-care professionals in our health system. A modified version was implemented in the pathology residency program for professionalism competency. Twenty-one trainees were divided into 3 groups, with a facilitator who was a graduate of the system Mentoring and Professionalism in Training Program. Five sessions included topics on appreciative inquiry, active role modeling, conflict resolution, team building, feedback, mindfulness, and physician well-being. Participants completed pre- and postsurveys. Qualitative responses were very positive, for example, one participant felt the sessions helped "understand intricacies of workplace relationships and ways of effective, respectful, communication." The Mentoring and Professionalism in Training is a curriculum that teaches team building, conflict resolution, and feedback along with strategies to balance well-being with professional commitments and growth. It is an effective educational tool that can satisfy the Accreditation Council for Graduate Medical Education professionalism curriculum.

Introduction

According to the Accreditation Council for Graduate Medical Education (ACGME) guidelines, professionalism and "interpersonal communication skills that result in effective information exchange" are core competencies of residency training.[1] Knowledge and skills along with the appropriate attitude are all equally essential in the development of an ideal health-care professional. It is often assumed that professionalism will be innately instilled; however, no formal established curriculum on professionalism exists in pathology residency training.[2,3]

Mentoring is a crucial part of modern day training in medicine. Proper guidance and strong professional bonds with peers, faculty, and chairs are imperative in carving out a meaningful career path resulting in higher levels of job satisfaction and performance. Mentoring, however, is usually performed in an informal manner, and residency training would benefit from a more formal training in mentorship.[4-8]

[1] Department of Pathology, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Lake Success, NY, USA
[2] Department of Science Education, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Hempstead, NY, USA

Corresponding Author:
Sudarshana Roychoudhury, Department of Pathology, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, 6 Ohio Drive, Suite number 202, Lake Success, NY 11042, USA.
Email: madhua83@gmail.com

Table 1. Original MAP-IT Curriculum.

Session 1	Appreciative inquiry and active role modeling	Appreciative inquiry is used as strategy to successfully navigate issues encountered in mentoring. Active role modeling: Through role-playing, participants practice skills inherently involved in coaching.
Session 2*	Objective structured teaching encounter	Mock encounter session with a standardized learner seeking mentorship stimulating a real-life situation.
Session 3	Team building	Working on highly functional teams—Learn origins of team conflict and employing useful tools to decrease or resolve conflict.
Session 4	Team building (Conflict resolution)	Working on high performance teams.
Session 5	Feedback	Role-play and small group discussions aimed at understanding: Differences between feedback, formative, and summative evaluation barriers to effective feedback/evaluation. The importance of goal setting, learning climate, and observation. Fostering self-assessment and self-correction to assure high-quality feedback. Providing feedback to resistant learners.
Session 6*	After the error	How to obtain a meaningful learning experience from a professional error.
Session 7	Enhancing well-being, self-care, resilience	Professional burnout is dysfunctional and leads to behaviors not exemplifying humanistic behaviors. It is important to be able to recognize burnout. Resilience is an important link to well-being through self-care. Using reflection, groups will focus on aspects of professional identity that supports resilience. Involves learning to demonstrate skills of mindfulness beginning with the skills of noticing. Participants will apply skills of mindfulness to professionalism challenges and discuss how clinicians can maintain the sense of well-being which allows one to reach out to others.
Session 8*	Cynical humor in the clinical setting	Reflection on the use of humor in the clinical setting.
Session 9	Mindfulness and self-care	Discussing skills of noticing and reaching out to professional colleagues.
Session 10*	Focused program reflection	Obtain feedback on the MAP-IT series and complete postassessment tools.

Abbreviation: MAP-IT, Mentoring and Professionalism in Training.
*These sessions were omitted in the resident-modified MAP-IT due to time constraints and because the other sessions were thought to be most beneficial to resident training in professionalism. Sessions 7 and 9 were combined into one session. None of the content from the retained sessions was modified from the original system curriculum.

Despite curricular reforms, an alarming number of medical students and postgraduate trainees report increasing cynicism, depressive symptoms, and burnout. Lack of well-being can challenge the altruistic and humanistic focus ultimately affecting professional growth and development.[9,10] This is an area that is often not actively addressed during training and has been often documented to affect essential core competencies.[11,12]

To address these issues, the Mentoring and Professionalism in Training (MAP-IT) Program was developed as a unique project to implement an interprofessional curriculum incorporating humanism as a core value in the professional development of health-care professionals throughout the Northwell Health System. The system MAP-IT curriculum was adapted by one of the authors (A.F.) from the original curriculum created by Dr William Branch.[13] This adaptation was structured as a 10-month program sponsored by the Arnold P. Gold Foundation and directed at medical faculty and nurses[14] (Table 1). "Appreciative Inquiry" was introduced as a foundational principle of the course. Appreciative inquiry is looking for what works well in making any organization run effectively and doing more of it. This is more motivating and effective than looking for what does not work and doing less of it, as it serves as a positive reinforcement. Skill building specific to humanistic mentoring for each session focused on the following topics: active role modeling, team building, giving feedback, cynical humor, clinical errors, enhancing wellness and resilience, and mindfulness were incorporated in this course to provide a comprehensive overview. Three faculty members from the pathology department took part in the system-wide training program. Graduates of the system program were charged with bringing back the curriculum to their departments and utilizing it in some manner to enhance mentoring and professionalism. The pathology residency program was looking to initiate a curriculum in professionalism and mentoring to satisfy the ACGME professionalism milestones and enhance the well-being of their residents. It was decided to use a modified version of the system-wide MAP-IT program to achieve this end. To the best of our knowledge, this is the first attempt to introduce a structured formal professionalism and mentoring curriculum in pathology residency training.

Materials and Methods

Study Sampling

The study participants consisted of 21 residents and fellows of the Donald and Barbara Zucker School of Medicine at Hofstra/Northwell Health pathology residency training program, Lake Success, New York. The participants were equally divided into 3 groups of 7. Each group included a range of first- through

fourth-year residents along with fellows to achieve a good balance in professional experience. Each group was moderated by a faculty facilitator (MD) who was a graduate of the system MAP-IT program. This differed from the system MAP-IT, which included nurse facilitators and participants. Paired facilitators were not considered necessary as there were no allied health professionals in our groups. The local institutional review board approved an exemption for this study.

Study Design

Each session included critical reflection using appreciative inquiry, skill building, and application of content to the clinical work environment postsessions. These sessions were incorporated as part of the daily morning didactic sessions for residents. A total of 5 sessions of 90-minute duration each were held over a period of 6 months (Table 2). Each individual session incorporated one of the following topics: appreciative inquiry and active role modeling, team building, conflict resolution, giving effective feedback, and mindfulness and physician well-being. Presession source reading material was assigned for each session and completed by all participants (course material available to program directors upon request, see Authors' Note). The sessions were based on an active learning model with emphasis on participation and sharing of experiences by all the members. Role-playing to build the intended skills of mentoring and narrative writing to support critical reflection among peers and enhance connection to the selected topics were also utilized.

The original system-wide MAP-IT had 10 sessions as outlined in Table 1. The pathology residency program MAP-IT utilized 6 of the 10 sessions (2 of the original sessions were combined into 1 session) which were believed to be of most benefit to residents in keeping with the ACGME guidelines and to fit into the schedule of the residents' didactic session (Table 2).

Data Analysis

All participants completed a pre-MAP-IT quantitative online survey (Survey Monkey, Palo Alto, California) comprised of 12 questions on fundamental humanistic qualities based on the previously validated 10-item Humanistic Teaching Practices Effectiveness (HTPE) questionnaire[14,15] (Table 3). At the end of 6 months, all participants completed a post-MAP-IT semiquantitative survey consisting of the same 12 questions, as well as an additional qualitative survey questions asking how MAP-IT had enhanced their mentoring and professionalism skills. Means, standard deviations, medians, minima, and maxima were calculated for each question in the pre- and postsurveys. The Wilcoxon signed rank test was used to test for differences in responses between pre- and postsurveys. A result was considered significant if $P < .05$. All analyses were conducted using SAS version 9.4 (SAS Institute Inc, Cary, North Carolina). The survey was designed to be anonymous so as to improve honesty and accuracy of feedback.

Table 2. MAP-IT Program Curriculum.

Session	Topic	Summary
1	Appreciative inquiry and active role modeling	Appreciative inquiry is used as strategy to successfully navigating issues encountered in mentoring. Active role modeling: Through role-playing, participants practice skills inherently involved in coaching.
2	Team building	Discuss high functioning team formation. Skills are practiced through interactive group exercises, self-reflection, and storytelling.
3	Conflict resolution	Learn origins of team conflict and employing useful tools to decrease or resolve conflict.
4	Feedback	Role-play and small group discussions aimed at understanding: Differences between feedback, formative, and summative evaluation. Barriers to effective feedback/evaluation. The importance of goal setting, learning climate, and observation. Fostering self-assessment and self-correction to assure high-quality feedback. Providing feedback to resistant learners.
5	Enhancing well-being, resilience, self-care, and mindfulness	Professional burnout is dysfunctional and leads to behaviors not exemplifying humanistic behaviors. It is important to be able to recognize burnout. Resilience is an important link to well-being through self-care. Using reflection, groups will focus on aspects of professional identity that support resilience. Involves learning to demonstrate skills of mindfulness beginning with the skills of noticing. Participants will apply skills of mindfulness to professionalism challenges and discuss how clinicians can maintain the sense of well-being which allows one to reach out to others

Results

There were 21 participants, 9.5% were male and 90.5% were female. Sixty-seven percent were in the age-group of 25 to 34 years and 33% were in the age-group of 35 to 44 years. There were 15 pathology residents, 3 oral pathology residents, and 1 fellow each in surgical pathology, hematopathology, and cytopathology, respectively (Table 4). All the participants had informal experience in supervising junior residents, medical students, undergraduates, and volunteers who regularly rotate through the Department of Pathology. This included assistance in grossing, previewing surgical pathology cases and autopsy, but no formal mentoring in professionalism.

For each of the 12-survey questions, 19 of the 21 participants (18 for question 10) completed both the pre- and postsurvey as 2 participants had graduated from the health system at the time of the postsurvey. No significant difference was observed between pre- and postsurvey responses for any of the

Table 3. Analysis of the HTPE Self-Assessment Pre- and Postsurvey.

Question	Pre (n = 21)			Post (n = 19)			*Diff = Post-Pre (n = 19)		
	Mean	Standard Deviation	Median	Mean	Standard Deviation	Median	Mean	Standard Deviation	P Value
1. Listen carefully to connect with others (eg, colleagues)	4.38	0.67	4	4.32	0.67	4	−0.11	0.74	.77
2. Inspire mentees to grow personally	4.00	1.05	4	4.05	0.91	4	0.05	1.08	.75
3. Skillfully recognize and support emotions of patients, team members, mentees, and of myself in difficult situations	4.19	0.93	4	4.16	0.76	4	−0.05	0.91	.97
4. Actively use teaching opportunities to illustrate humanistic care	3.57	1.25	4	3.68	0.95	4	0.16	1.30	.74
5. Stimulate reflection by the team on their approach to the care of the patient (clinical decisions, management, and treatment plans)	3.67	1.06	4	3.74	0.99	4	0.11	0.99	.82
6. Help others to use social history to inform the care of the patient clinical decision-making	3.43	1.12	3	3.63	1.01	3	0.26	0.56	.13
7. Serve as an outstanding role model for how to build strong relationships with learners and colleagues	3.62	0.92	4	3.74	0.99	4	0.16	0.83	.59
8. Serve as an outstanding role model for how to build strong relationships with patients	3.29	1.15	3	3.42	1.07	4	0.21	0.79	.40
9. Explicitly teach communication and relationship—building skills	3.24	1.00	3	3.47	1.26	4	0.32	0.89	.19
10. Inspire others to adopt caring attitudes toward patients to provide quality care	3.86	0.85	4	3.68	0.95	3	−0.16	0.90	.63
11. Learners and colleagues come to know me as both a good clinician and a caring person	3.90	1.04	4	3.89	0.94	4	0.00	0.82	1.00
12. Patients come to know me as both a good clinician and a caring person	3.76	1.18	4	3.89	0.99	4	0.16	0.83	.59

Abbreviations: HTPE, Humanistic Teaching Practices Effectiveness; MAP-IT, Mentoring and Professionalism in Training.
*Means from the pre-MAP-IT responses were calculated for 21 individuals and the means for the post-MAP-IT responses were calculated for the 19 individuals who completed the survey after the intervention. As a result, the mean of the differences and the difference of the means were not the same.

Table 4. Characteristics of the Participants.

Characteristics		No of participants	
Age	25-34 years	14	
	35-44 years	7	
Sex	Women	19	
	Men	2	
Residents	Pathology Anatomic/Clinical (AP/CP)	15	
	Oral pathology	3	
Fellows	Surgical pathology	1	
	Hematopathology	1	
	Cytopathology	1	
Post graduate year (PGY) distribution	Resident PGY level	Pathology AP/CP	Oral pathology
	PGY1	4	1
	PGY2	4	1
	PGY3	4	1
	PGY4	3	0
Medical degree	MD	14	
	DO	3	
	MD, PhD	1	
	DDS	3	

12 questions (Table 3). Difference in responses whether the resident was a graduate from an allopathic versus osteopathic school was not evaluated in this study.

Discussion

Professionalism as defined by Stern involves a set of 4 main principles: excellence, humanism, accountability, and altruism.[16] Appreciative inquiry, team building, conflict resolution, and giving and receiving feedback are essential skills that enhance the development of professionalism. Literature review on professionalism training in residency shows that while there are many articles emphasizing the importance of teaching professionalism, no definite guidelines or structured curriculum to help guide such training has been published.[2,3] The MAP-IT is a pioneer effort to establish a curriculum for professionalism training in residency programs.

The first session was on appreciative inquiry and active role modeling. People are most productive when their work is personally meaningful, and they feel that they are making a difference.[17] Often there are certain events in the life of a physician which act as turning points in their professional development and are based

on active modeling by their teachers and/or mentors.[18,19] Each group member recollected a scenario involving appreciative inquiry and active role modeling. One participant felt the session on appreciative inquiry helped them realize the value of their work on a daily basis, which they found very gratifying.

The second session was on team building. Team building helps a work group evolve into a cohesive unit with greater productivity and is an essential element of professionalism.[20] Each participant narrated an experience where they were part of a team focusing on interactions and relationships and why the team succeeded. This was followed by an exercise where the group recreated a situation where they would be required to work as a team. The session ended with a discussion of the attributes of good team cohesiveness, communication, role clarity, and common goals.

The third session was on conflict resolution. Interpersonal conflict will arise when working as a team.[20] A conceptual tool called the cone in a box model was discussed to show that 2 people might have different perspectives about the same situation depending on the angle at which they are looking at it. The group learned about asking "curious questions," which is an essential tool for exploratory dialogue. Curious questions are questions that come from a place of genuinely not knowing, where the person you are asking is absolutely the unique and final authority on their answer and where there is no theory or interpretation hidden in the question. It assists in deepening the understanding of oneself and each other and makes the implicit explicit without leaving any room for assumptions. Examples of curious questions include: "What is hard for you in this? What is your greatest fear?" These 2 tools were utilized by each group member to reflect on and discuss a previously experienced conflict situation that they had been in. This was followed by a debriefing on 2 skills to address conflict: ARTS of communication (Ask, Respond with empathy, Tell your perspective, Seek together for solutions) and PEARLS skills (Partnership, Empathy, Acknowledgement, Respect, Legitimation, Support). The most important teaching point was to listen to the other person's point of view before drawing any conclusions. The session helped another participant "think of the other person's perspective when dealing with conflict."

The fourth session was on feedback. "Formative evaluation" is an essential learning tool that improves performance. However, giving and receiving feedback in a constructive, nonjudgmental manner can be challenging.[21-24] It should be performance-specific, objective, nonjudgmental, timely, and in an appropriate location and time. The 'S'-FED Model (Self-Assessment, Feedback, Encouragement, Direction) of giving feedback was discussed followed by role-play based on the key elements of the model. Allowing the learner time for reflection, discussing specific suggestions for improvement, and creating an interactive partnership are the essence of successful feedback. This session was the most effective as 8 participants felt that they were now more confident in giving "effective," constructive" feedback without "being judgmental." A participant pointed out that the 'S'-FED model requires one to be aware of his/her strengths and weaknesses, which leads to "self-correction."

Another resident thought the 'S'-FED model would be particularly effective in providing "feedback" for those learners who have difficulty with constructive criticism.

The last session was focused on how to maintain a sense of well-being, which allows one to reach out to others, including learners, colleagues, and patients. Physician burnout is defined as a psychological syndrome in which one loses enthusiasm for work (emotional exhaustion), treats people as if they were objects (de-personalization), and results in a sense that work is no longer meaningful (low personal accomplishment).[25,26] Mindfulness is "the awareness that arises as we pay attention, on purpose, in the present moment, nonjudgmentally." Several studies have shown the benefits of practicing mindfulness training in successfully dealing with physician burnout.[27] In order to emphasize the importance of meaning in one's life, each participant including the mentor brought an object (trigger), which symbolized a meaningful aspect of their professional roles.[28] This exercise helped discover something new about one another as well as encourage reflection of one's own well-being. This was followed by a 15-minute meditation session. This session was also very well received. A participant remarked that "sharing of stories was very powerful in establishing a connection within their group" and another resident commented that "it took them on a beautiful journey of rediscovering themselves and each other." To another participant, the session on physician burnout served as an eye opener as it "highlighted lack of self-care" and made them realize the importance of "including time for themselves and to make time for their favorite hobby."

Several limitations of this study should be considered. Interestingly, despite strong positive qualitative feedback after the sessions, the differences between the pre- and post-MAP-IT quantitative survey were not statistically significant. This may be due to the fact that there was not enough time to practice the skill sets after completion of the sessions. Since the cohort was predominantly female, gender bias may have been a limiting factor. In addition, there was a lack of long-term follow-up to assess the possible benefits of this curriculum.

The sample size of the participants was small and limited to trainees of the pathology department of one institution, and our findings may not apply to residents in other programs. A self-assessment measuring tool in the form of an online quantitative survey was used. Another limitation was the pre- and postsurvey questions were taken from the original system-wide MAP-IT program which targeted physicians and nurses of all specialties. The questions were based on the original HTPE questionnaire modeled on an internal residency program.[14,15] In pathology training, however, we have very limited patient access and some of the questions were not directly relevant in the context of pathology training and should be omitted. This could also explain the marginal difference between the pre- and post-MAP-IT quantitative surveys as participants felt some of the questions didn't directly apply to their immediate work environment. We conclude that the questions in the surveys should be structured keeping in mind the target participants and their immediate work environment. Another future opportunity to better understand the impact of the program would be

to analyze written reflections from the sessions. After the success of the first MAP-IT initiative in our program, the 5-session series has been officially incorporated as part of our formal didactic series to be repeated on a 2-year cycle. Additionally, 3 more senior attending pathologists participated in the system-wide program to enable more facilitators within the department.

In conclusion, the residents welcomed the MAP-IT program with enthusiasm and it had a positive impact on their training. The sessions helped residents understand the intricacies of workplace relationships and highlighted methods of effective, respectful, and productive communication and professionalism in the work environment. In the words of a participant, MAP-IT "makes us pause a moment and reflect that there is a lot more to career development than just knowledge-based learning."

We believe that the modified MAP-IT workshop series is a reproducible, essential, and compact educational tool that every residency program should consider making a part of their curriculum to help achieve the ACGME core competency goals.

Authors' Note

Declaration of Conflicting Interests

Funding

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