A Professionalism Curricular Model to Promote Transformative Learning Among Residents

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ABSTRACT

Background Using the frameworks of transformational learning and situated learning theory, we developed a technology-enhanced professionalism curricular model to build a learning community aimed at promoting residents' self-reflection and self-awareness. The RAPR model had 4 components: (1) ***R**ecognize*: elicit awareness; (2) ***A**ppreciate*: question assumptions and take multiple perspectives; (3) ***P**ractice*: try new/changed perspectives; and (4) ***R**eflect*: articulate implications of transformed views on future actions.

Objective The authors explored the acceptability and practicality of the RAPR model in teaching professionalism in a residency setting, including how residents and faculty perceive the model, how well residents carry out the curricular activities, and whether these activities support transformational learning.

Methods A convenience sample of 52 postgraduate years 1 through 3 internal medicine residents participated in the 10-hour curriculum over 4 weeks. A constructivist approach guided the thematic analysis of residents' written reflections, which were a required curricular task.

Results A total of 94% (49 of 52) of residents participated in 2 implementation periods (January and March 2015). Findings suggested that RAPR has the potential to foster professionalism transformation in 3 domains: (1) attitudinal, with participants reporting they viewed professionalism in a more positive light and felt more empathetic toward patients; (2) behavioral, with residents indicating their ability to listen to patients increased; and (3) cognitive, with residents indicating the discussions improved their ability to reflect, and this helped them create meaning from experiences.

Conclusions Our findings suggest that RAPR offers an acceptable and practical strategy to teach professionalism to residents.

Introduction

The Accreditation Council for Graduate Medical Education identifies professionalism as a core competency for trainees.[1] Yet, a lack of consensus exists regarding effective approaches for teaching professionalism in residency. Professionalism initiatives are often deficit based, focusing on lapses, rather than best practices.[2,3] Further, self-reflection and contextualized instruction (ie, specific settings with related behaviors and internal dilemmas) are important in understanding the complexity of professionalism.[4–6] An occasional lecture or single workshop may not prompt changes in perspective or provide opportunities to reflect on experiences that are key for professional identity formation.[7]

Situated learning theory emphasizes placing learning activities in real-world settings, within communities of practice, to help learners create meaning. Communities of practice refer to the environments where individuals function.[8] Residents function in clinical settings, their specialty or residency program, and professional circles within the larger medical community. The responsibilities, roles, and learning potential of each resident vary depending on context and community membership. Each community has its own culture and hidden curriculum,[9] which can challenge a learner's sense of professional identity.

Transformative learning theory[10] posits learning is triggered by a disorienting dilemma that brings about a change in perspective through discourse and critical reflection. Professionalism training in residency presents a unique opportunity to foster transformative learning because of the pervasiveness of disorienting situations that may challenge professionalism.

Using the frameworks of transformative learning and situated learning theory[8] we developed a technology-enhanced professionalism curricular model—Recognize, Appreciate, Practice, Reflect (RAPR). RAPR aimed to build a learning community and promote residents' self-reflection and self-awareness.[11–13] In this article, we offer a description of the model, its elements, and related assumptions. We examined the acceptability and practicality of our model in relation to teaching professionalism in a graduate medical education

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Editor's Note: The online version of this article contains examples of the RAPR model: weeks 1–4; curricular model procedures, including orientation; and an educational experience questionnaire.

setting. For acceptability, we explored the perceptions of residents and faculty regarding the RAPR model. For practicality, we evaluated whether residents can perform curricular activities to support transformative learning.

What was known and gap
Professionalism often is taught in single lectures, and little is known about acceptability and practicality of a larger professionalism curriculum.

What is new
A 4-week professionalism curriculum with specified tasks, including reflection, and award of a certification at completion.

Limitations
Small sample, single institution, and single specialty study reduce generalizability.

Bottom line
Face-to-face of professionalism was the most successful aspect of the intervention; providing protected time for learners to explore professionalism is key to effective learning.

Methods

Participants

We purposefully selected 52 of 168 internal medicine residents (postgraduate years 1–3 [PGY-1 to PGY-3]) at a large Midwestern academic medical center to participate in a 10-hour, 4-week professionalism curriculum. Residents were selected based on their availability during the planned implementation period of January and March 2015 (Mondays, 7 AM). The program director notified the 52 eligible residents of their assignment to the RAPR curriculum and asked them to attend the sessions as part of their standard academic obligations. Residents were expected to attend; however, they were not penalized for schedule conflicts. Our implementation procedures are outlined in the online supplemental material.

Curriculum

A committee of educators and clinicians designed and implemented the RAPR professionalism curricular model. A detailed description of the 4 units ***R**ecognize, **A**ppreciate, **P**ractice, **R**eflect* is provided as online supplemental information. Each week of the curriculum was dedicated to a unit: (1) ***R**ecognize* (increased awareness of professional exemplars); (2) ***A**ppreciate* (fostered a professionalism knowledge base); (3) ***P**ractice* (targeted application); and (4) ***R**eflect* (prompted reflection about insights and implications).

The implementation of RAPR was technology facilitated through annotated videos, key articles, and relevant materials. Technology also enhanced faculty's ability to provide feedback through tools and immediate access to residents' reflections, comments, and concerns. We developed a web portal (http://www.cmfoshee.com/ccf-community) and organized content around RAPR using collaborative technologies (wiki, blogs, social media)[14] to support the curriculum and the transformative learning tenets.

The Cleveland Clinic's Institutional Review Board designated the protocol for this curriculum as exempt.

Data and Analysis

To explore the acceptability and practicality of the model, we tracked attendance and completion of online activities in relation to required tasks. Upon conclusion of each 4-week curricular block, we administered a 15-item Educational Experience Questionnaire (EEQ) to assess outcomes for each curricular activity (eg, "Reflecting helped me clarify my understanding about professionalism"), provided as online supplemental material. We conducted 2 focus groups with a total of 10 volunteer residents to determine whether focus group participants voiced different reactions than those evidenced in the written reflections or questionnaire responses, and to improve the experience of the second cohort based on input from the first. After completing both 4-week blocks, we conducted faculty interviews (with 6 of 10 faculty who taught the curriculum) to elicit their perspectives on the curricular model and the practicality of the approach.

To evaluate the extent to which RAPR supports transformative learning of professionalism, we collected written reflections from the 4 required tasks: definitions, collaborative vision, critical reflections, and lessons learned. Adopting a constructivist paradigm,[15] 1 author (C.M.F.) conducted a thematic analysis[16] and tagged comments related to the transformative theory perspective (self-awareness/changed perspectives, views, or attitudes), followed by repeated examination to infer prevalent patterns. Another author (S.B.B.) independently reviewed this analysis. Both authors explored the data to reach consensus on overarching themes. A similar approach was used to code focus groups and faculty interviews. These data served to support/refute patterns and themes inferred from the analysis of residents' written reflections.

Because our approach aimed to increase and encourage self-awareness, reflection, perspective taking, and positivity, we anticipated that empathy and resilience would be relevant by-products of the curriculum.[17] We administered the Jefferson Scale of Physician Empathy[18] and the Resilience Scale[19] on 3

different occasions: the start of the curriculum (T1), midway (T2, after first 4-week block), and upon completion of both blocks (T3). We conducted a repeated-measures analysis of variance, with empathy and resilience as dependent variables and time as the independent variable. Residents received their individual scores along with their cohort's average score as tools for self-reflection.

We also anticipated that this curricular experience would enhance professional interactions; therefore, we awarded Professionalism Quality Improvement certificates commensurate to their level of engagement.

Results

A total of 52 residents met the inclusion criteria, and 49 (94%) participated. Prior to start of the curriculum, 3 residents dropped out due to scheduling conflicts. Those available in January (24) comprised the first cohort, and those available in March (25) comprised the second cohort. The majority of participating residents were male (33 of 49, 67%), younger than 30 years (43 of 49, 88%), and equally distributed among PGY-1 through PGY-3 (PGY-1, 17 [35%]; PGY-2, 16 [33%]; and PGY-3, 16 [33%]). There were no statistically significant differences between means across the factor of time (T1, T2, T3) for either empathy or resilience.

Acceptability

A majority of the residents who completed the EEQ (87%, 34 of 39) agreed they would participate in the program again (TABLE). Focus group data and faculty interviews augmented the sense of acceptance by describing the experience as a "much-needed forum to discuss issues" not addressed elsewhere in residency curricula. The technology utilization/acceptance was not as anticipated: residents shared minimal reflections using social media, and focus group data confirmed that residents disliked using social media to share reflections. Nonetheless, a small majority agreed that the portal increased engagement. Technology enabled the online submissions of required tasks: definitions, critical reflections, and lessons learned.

We observed higher acceptance/compliance in the second cohort, which may be due to changes implemented, based on feedback from the first cohort focus group. Changes included extended orientation, weekly reminders, printed to-do lists distributed at each session, in-session time to work on "shared vision," and electing a volunteer from each small group to submit the group's final vision.

Practicality

Successful completion of required tasks (TABLE) and awarding of 45 certificates (92%) confirmed the practicality of the curricular activities. Certificates were awarded at various levels to recognize resident's efforts toward improving professional interactions: attendance (8 of 49, 16%), participation (18 of 49, 37%), and achievement (19 of 49, 39%). While focus groups and faculty interviews highlighted that residents found it challenging to find the time to engage with the curriculum during busy rotations, faculty and residents agreed that the activities were worthwhile and manageable.

The thematic analysis of residents' reflections (82 reflections, 314 codes) suggested that the curriculum fostered professionalism transformations in 3 general domains: attitudinal, behavioral, and cognitive, with the EEQ responses echoing the themes in the analysis (TABLE).

Attitudinal Domain: Attitudinal domain related to reflections about a change of view, attitude, or perspective. Consistent with the goal of the activities in ***Recognize***—to enhance awareness—residents reported viewing professionalism in a more positive light.

> "I used to [view] professionalism training as a punishment. . . . Prior to these sessions, I didn't recognize that my training needed to include professionalism. . . ."

> "Reflecting made me think and notice professional behavior in me and others and find out which traits I should carry in me."

Behavioral Domain: Behavioral domain denoted explicit reflections about having modified, adopted, or stopped specific behaviors. Residents' comments supported the ***Appreciate*** aim of building a cognitive base with statements that alluded to increased empathy and deeper understanding.

> "Now I am continually reminding myself to engage patients and deploy true and real empathy."

> "This program had a positive implication in my interactions with the patients."

> "This program allowed me to understand and internalize my own definition of professionalism and therefore make it part of my activities."

Cognitive Domain: Cognitive domain reflections comprised residents' interpretations about the meaning

TABLE
Educational Experience Questionnaire (EEQ) Responses[a]

Question	No. (%)
Response rate	39/49 (80)
Would you participate again?	
Yes	34/39 (87)
No	5/39 (13)
Agreed and strongly agreed ratings relating to curricular activities	
Observations increased situational awareness	34/39 (87)
Reflection enhanced understanding of professionalism	34/39 (87)
Reflection helped create meaning	33/39 (85)
Defining professionalism increased understanding	31/39 (79)
Defining professionalism influenced behavior change	29/39 (74)
Self-monitoring helped identify behavior patterns	28/39 (72)
Collaboration helped build relationships	30/39 (77)
Sharing own experiences enhanced self-awareness	32/39 (82)
Group discussions helped gain new perspectives	33/39 (85)
Overall experienced changed view of professionalism	30/39 (77)
Agreed and strongly agreed ratings relating to technology	
Web portal increased engagement	23/39 (59)
Videos increased viewing of information	20/39 (51)
Social media increased reflections	16/39 (41)
Wiki increased discussion contributions	13/39 (33)
Curricular activities: proportion of completed tasks across curriculum	
Face-to-face sessions	
Attendance: Monday mornings	49/49 (100)
Online activities	
Definitions: due week 2	29/49 (59)
Critical reflections: due week 3	25/49 (51)
Lessons learned: due week 4	26/49 (53)
Surveys	
Jefferson Empathy Scale: all 3 times	19/49[b] (39)
Resilience Scale: all 3 times	21/49[b] (43)
EEQ: administered once	39/49 (80)

[a] A 15-item, 7-point Likert-style scale with the anchors strongly disagree (1) and strongly agree (7).

[b] Value indicates number of surveys completed across all administrations of each survey; does not account for surveys completed only once or twice.

of professionalism. This domain exhibited features of ***Practice*** and ***Reflect*** with its focus on creating meaning and reflecting. Residents viewed the reflections, discussions, and process of defining professionalism as activities that helped them shape their thinking and behavior.

> "The seminar has broadened my perspective of professionalism . . . has helped me work toward developing a deeper understanding of behaviors."

> "I will start changing the way I approach difficult situations by outlining the things I hope to accomplish instead of the things I want to avoid."

Discussion

Our approach gained acceptance from residents and faculty, who reported they would participate in the program again. Residents expressed awareness and perspective shifts indicative of transformational learning. Although our intervention did not enhance residents' empathy or resilience, our study identified a facilitative role for technology in facilitating task completion, and potentially self-reflection.

The grounded theory data offer 1 strategy to engender self-reflection about professionalism that aligns with best practices in the literature.[2] In contrast to the typical lectures or 1-time seminars, our 4-week approach placed emphasis on fostering self-awareness, developing strengths, exploring relationships between values and behavior, and creating meaningful experiences through critical discourse. RAPR presents educators with an intervention to deepen the teaching of professionalism with needed framework to address professionalism and its related ethical dilemmas.[20]

The lack of impact of the curriculum on residents' empathy and resilience is inconsistent with the literature.[21–23] It is likely that sample size and poor completion rates across time contributed to the nonsignificant changes, as only a minority of residents completed all 3 assessments. It also is possible that the length of exposure to the curriculum was too brief, or the measures used were not sufficiently sensitive to detect changes.

Our expectation that residents would share professionalism-related thoughts/feelings using social media was not met. Residents rejected this public forum, likely because it does not provide the safe environment required for self-disclosure and candor related to professionalism. Also, the social media activity did not capture residents' reactions to content shared. For example, through focus groups, we

learned that 1 video (TED: "Doctors Make Mistakes. Can We Talk About That?") was so powerful that residents engaged in hallway conversations—yet, they remained silent on social media.

The assessment of this intervention has limitations, reducing the generalizability of our findings. Aspects include the reliance on self-reports and the modest sample size from a single specialty at 1 institution. Both faculty and learners viewed time as a major barrier to future replication.

Based on our experience, we recommend making the curriculum part of academic half-days; protecting faculty time; training chief residents to provide feedback; removing social media; utilizing existing tools (eg, Moodle or other learning management systems); including existing professionalism ratings; and considering using a transformational learning instrument.[24] To evaluate the impact of the curriculum on professional behavior, future implementations should consider delivering RAPR over 8 to 12 weeks in a face-to-face format enhanced by the online reflection activities.

Conclusion

Our findings support the use of RAPR as a promising model to cultivate self-reflection and deeper understanding about professionalism. We found RAPR to be an acceptable and practical approach to teaching professionalism in graduate medical education. The face-to-face sessions were the most successful aspect of the intervention. Providing protected time to explore professionalism in meaningful ways is key to a transformative learning approach.

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