Refining the Milestones for Assessment of Professionalism Skills

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ABSTRACT

Background The milestones created by the ACGME beginning in 2009 were developed by each individual specialty. The lack of standardization across specialties has resulted in unnecessary variation and has complicated the development of validated assessment tools.

Objective To develop a common set of subcompetencies and milestones that could harmonize the professionalism (PROF) competency across specialties.

Methods A group of medical educators with expertise in professionalism (PROF) was recruited by the ACGME and created 3 PROF subcompetencies: (1) professional behavior and ethical principles (PROF1); (2) accountability and conscientiousness (PROF2); and (3) self-awareness and help-seeking (PROF3). After vetting the new subcompetencies with a group of medical educators at a national conference, an electronic survey was sent to a national sample of stakeholders to assess if the subcompetencies should be used, were understandable, and could be assessed.

Results A total of 1195 respondents completed the survey. Agreement across all specialty types and stakeholder roles was highest for PROF-1, followed by PROF-2 and PROF-3. Levels of agreement with survey item 3 was lower across specialties and roles, particularly for PROF-3. While levels of agreement were similar across specialties, they varied somewhat by role.

Conclusions The majority of stakeholders surveyed understood and believe they should the 3 new "harmonized" subcompetencies for professionalism. Agreement was somewhat lower for the question on whether these subcompetencies could be assessed. The PROF subcompetencies selected by the workgroup use a behavioral approach, and identify attributes of professionalism relevant across specialties. The associated milestones provide concrete, behavioral indicators of increasing competence in professionalism.

Introduction

Milestones were first used by the Accreditation Council for Graduate Medical Education (ACGME) in 2013 as 1 part of the ACGME's Next Accreditation System.[1] They serve as an outcomes-based assessment framework based on the 6 competencies: medical knowledge (MK), patient care (PC), interpersonal and communication skills (ICS), practice-based learning and improvement (PBLI), professionalism (PROF), and systems-based practice (SBP).

When the milestones were first developed, each specialty had flexibility to identify subcompetencies and write associated developmental milestones. These initial milestones were co-produced by program directors, faculty, residents, and other stakeholders (eg, medical educators, nurses), and demonstrated substantial variability both with respect to milestone content and how the developmental progression of competence is operationalized across milestone levels.[2] This made it more difficult to share assessment tools, and created differential expectations of residents that were sometimes hard to justify.[3]

In response, the ACGME authorized 4 multidisciplinary workgroups to develop common sets of subcompetencies and milestones for the 4 common competencies (ICS, PBLI, PROF, and SBP) that could be used across specialties, creating harmonization in the milestones. The intent was to identify subcompetencies important to all learners and offer appropriate developmental language. Each group was asked to develop harmonized milestones for 1 of the 4 competencies. The groups comprised physicians from different specialties, nurses and allied health professionals, and experts in graduate medical education. In this article, we describe in detail the development of the harmonized milestones for professionalism.

Methods

Milestone Development

The professionalism workgroup consisted of 8 physicians, a PhD in health communications and curriculum design, and 2 professionalism experts. The professionalism workgroup started with the milestones currently used by core specialties and the transitional year, supplemented by data collected through focus groups and the biannual milestone submissions to ACGME. The group used this information to draft 3 subcompetencies with associated milestones: (1) professional behavior and ethical principles (PROF-1, FIGURE 1); (2) accountability and conscientiousness (PROF-2, FIGURE 2); and self-awareness and help-seeking (PROF-3, FIGURE 3). The initial draft subcompetencies were shared with attendees at an ACGME Milestones Summit held in late 2016, attended by more than 100 individuals representing the range of specialties. Feedback from attendees was collected, and used to further improve the draft subcompetencies and milestones.

FIGURE 1

PROF-1: Professional Behavior and Ethical Principles				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies and describes potential triggers for professionalism lapses Describes when and how to appropriately report professionalism lapses, including strategies for addressing common barriers Demonstrates knowledge of the ethical principles underlying informed consent, surrogate decision making, advance directives, confidentiality, error disclosure, stewardship of limited resources, and related topics	Demonstrates insight into professional behavior in routine situations Takes responsibility for own professionalism lapses Analyzes straightforward situations using ethical principles	Demonstrates professional behavior in complex or stressful situations Analyzes complex situations using ethical principles Recognizes need to seek help in managing and resolving complex ethical situations	Recognizes situations that may trigger professionalism lapses and intervenes to prevent lapses in self and others Recognizes and utilizes appropriate resources for managing and resolving ethical dilemmas as needed. (e.g., ethics consultations, literature review, risk management/legal consultation)	Coaches others when their behavior fails to meet professional expectations Identifies and seeks to address system-level factors that induce or exacerbate ethical problems, or impede their resolution
☐	☐	☐	☐	☐	☐	☐

Comments:

FIGURE 2

PROF-2: Accountability/Conscientiousness				
Level 1	Level 2	Level 3	Level 4	Level 5
Takes responsibility for failure to complete tasks and responsibilities, identifies potential contributing factors, and describes strategies for ensuring timely task completion in the future Responds promptly to requests or reminders to complete tasks and responsibilities	Performs tasks and responsibilities in a timely manner with appropriate attention to detail in routine situations Recognizes situations that may impact own ability to complete tasks and responsibilities in a timely manner	Performs tasks and responsibilities in a timely manner with appropriate attention to detail in complex or stressful situations Proactively implements strategies to ensure that the needs of patients, teams, and systems are met	Recognizes situations that may impact others' ability to complete tasks and responsibilities in a timely manner	Takes ownership of system outcomes
▢　　▢　　▢　　▢　　▢　　▢　　▢				
Comments:				

FIGURE 3

PROF-3: Self-awareness and Help-seeking				
Level 1	Level 2	Level 3	Level 4	Level 5
Recognizes status of personal and professional well-being with assistance Recognizes limits in the knowledge/skills of self or team with assistance	Independently recognizes status of personal and professional well-being Independently recognizes limits in the knowledge/skills of self or team Demonstrates appropriate help-seeing behaviors	With assistance, proposes a plan to optimize personal and professional well-being With assistance, proposes a plan to remediate or improve limits in the knowledge/ skills of self or team	Independently develops a plan to optimize personal and professional well being Independently develops a plan to remediate or improve limits in the knowledge/skills of self or team	Coaches others when emotional responses or limitations in knowledge/skills do not meet professional expectations
☐	☐	☐	☐	☐	☐	☐
Comments:				

PROF-1 Milestones: Professional Behavior and Ethical Principles

The PROF-1 milestones address professional behavior and ethical principles (FIGURE 1), which

are fundamental to the demonstration of competence in professionalism. Professional behavior is

facilitated by both self- and situational awareness, including the ability to identify potential

triggers for professionalism lapses.[4] Such triggers may include personal, interpersonal,

situational, or organizational stressors.[5] Personal stressors include unmet deficit needs,

inadequate knowledge or skills, distractions, or illness. Interpersonal stressors commonly arise

from relationship difficulties, unequal power relationships, clinical disagreement, or poor

communication. Situational stressors include high workload, inadequate supervision, or unavailable backup. Organizational stressors can relate to inefficient workflows, inadequate staffing, or a culture that rewards bad behavior.

Increasing competence in professionalism is evidenced by the ability to demonstrate professional behavior in increasingly complex situations. Examples of complex situations include those characterized by conflicts between professional values, between patients, or between professional values and basic human needs.[6] Challenges like these are common in medical practice and the ability to professionally navigate such situations requires increasingly sophisticated skills that can be taught, learned, and refined over time. Eventually, residents should be able to recognize situations that may trigger professionalism lapses and intervene to prevent lapses in themselves and in others.

Professionalism lapses are common, and physicians who are proficient in professionalism are able to support and coach others when their behavior fails to meet expectations. This may involve coaching in the moment, counseling after a lapse, and enforcing corrective consequences depending on the nature and recalcitrance of the behavior.[7] Strategies for structuring such conversations have been developed and make these interventions less intimidating and more effective.

Knowing when and how to report professionalism lapses is a key component of self-regulation, yet physicians commonly report barriers to reporting such as power differentials, uncertainty about one's observations, fear of retaliation, concern for negative consequences, or a belief that someone else will address the issue.[8–10] Anticipating these barriers and identifying strategies to address them enables physicians to participate more fully and meaningfully in professional self-regulation.

PROF-2: Accountability/Conscientiousness

Milestones in the category PROF2 address accountability and conscientiousness (FIGURE 2). Accountability and conscientiousness are thematically embraced as salient ingredients of the developmental framework that embodies professionalism. In the context of face validity, there are many in the graduate medical education community, and many in the public domain, who could articulate an assortment of definitions of these two elements that are anchored in behavioral descriptors.[11,12] The PROF-2 milestones strategically narrow the scope of these concepts with the goal of creating a shared mental model that is easily understood with measurable outcomes that are widely generalizable across the spectrum of graduate medical education.[13]

PROF-3: Self-Awareness and Help-Seeking

Milestones in the category PROF-3 address self-awareness and help-seeking (FIGURE 3). Personal and professional well-being are essential to a long and productive career,[14,15] and related skills, including help-seeking should be taught and assessed during residency training. Physician stress and burnout, in contrast, have been associated with reduced efficiency, increased physician turnover, and reduced quality of care.[16] Physicians face multiple threats to well-being including fatigue, substance disorders, stressors in the workplace, and others. Studies have demonstrated high and growing rates of physician burnout,[17,18] and distress may be especially high during training.[19,20] Education and assessment of wellness during training is crucial to promoting a physician workforce that embraces wellness and optimal clinical performance.

The level 4 goal of PROF-3 is for residents to develop plans to optimize personal and professional well-being. By formalizing the importance of mentorship by senior residents, PROF-3 highlights the essential nature of the team environment in supporting personal growth

and awareness. Program leadership through the CCC should assess this aspect of the program, and consider what should be done to provide structures that support individuals in achieving these goals. CCC members can assist the program director to create opportunities at resident orientation, retreats, faculty meetings, and rotation-based teaching environments to highlight wellness and encourage help-seeking behavior. Assessment of PROF-3 should occur in a variety of venues and involve faculty, CCC members, and peers.

Through the creation of a milestone highlighting self-care, the ACGME is prioritizing the development of self-awareness and help-seeking skills early in training. At a time when physician burnout has reached the status of an epidemic, teaching these skills early in training is essential to preservation of a healthy and long-lived professional physician workforce.

Stakeholder Survey

The resulting refined subcompetencies and milestones for professionalism were incorporated into a survey, which was fielded to obtain additional stakeholder input. Survey items asked for the respondent's role(s) in graduate medical education, specialty, and for their responses to the questions in the BOX.

BOX   **Milestones Survey Questions**

For each Milestone, participants indicated their agreement or disagreement with the following statements using a 4-point scale:

1. My specialty should use this subcompetency.

2. I understand what this milestone is assessing.

3. I know how to assess this milestone effectively.

The survey was administered using SurveyMonkey. A letter of invitation to participate in the survey, with a link to the electronic survey, was sent electronically to all email addresses included in the ACGME distribution list, and was posted on the ACGME website. Survey reminders were included in weekly ACGME e-communications. Participation was voluntary, and responses were anonymous. Respondents could elect to complete a survey for the 4 harmonized milestones (ICS, PBLI, PROF, and SBP) or only the milestones associated with a particular competency. The survey window was open from May 17 to June 1, 2016.

Data Analysis

We defined agreement as the percentage of respondents who selected either agree or strongly agree for each statement. The degree of agreement with each statement was categorized as strong (> 85% agreement), acceptable (75%–85% agreement), or low (< 75% agreement). It was determined a priori that low agreement with survey items 1 or 2 for a particular set of milestones (across all participants) was indicative of a need for further revisions.

Results

A total of 1195 participants responded, including 249 (21%) from hospital-based specialties, 577 (48%) from medical specialties, 205 (17%) from surgical specialties, and 164 (14%), who did not identify a specialty. Common roles held by respondents included program director (n = 750), program coordinator (n = 237), faculty (n = 192), and clinical competency committee member (n = 107).

Level of agreement by specialty is shown in TABLE 1, and by role in TABLE 2. Agreement across all specialty types and stakeholder roles was highest for PROF-1, followed by PROF-2 and PROF-3. Among all participants, levels of agreement with survey items 1 and 2 were

acceptable to high for the proposed milestones, and none met the pre-determined threshold for revisions. Levels of agreement with survey item 3 tended to be lower across all specialties and roles, particularly the PROF-3 milestones. While levels of agreement were similar across specialties, they varied somewhat by role. Program directors and clinical competency committee participants had lower agreement than individuals with institutional or other educational roles.

TABLE 1

Survey Responses to Proposed Professionalism Milestones by Specialty*

		Agree or strongly agree, n (%)			
		All Participants (n = 1195)	Hospital-Based Specialty (n = 249)	Medical Specialty (n = 577)	Surgical Specialty (n = 205)
PROF-1	1 – Should Use	1099 (92)	237 (95)	524 (91)	184 (90)
	2 – Understand	1128 (94)	236 (95)	543 (94)	193 (94)
	3 – Know How	963 (81)	195 (79)	453 (79)	175 (86)
PROF-2	1 – Should Use	1071 (90)	234 (94)	513 (89)	178 (87)
	2 – Understand	1107 (93)	231 (93)	536 (93)	190 (93)
	3 – Know How	1001 (84)	202 (81)	482 (84)	174 (85)
PROF-3	1 – Should Use	957 (80)	206 (83)	451 (78)	161 (79)
	2 – Understand	1033 (87)	212 (85)	496 (86)	183 (89)
	3 – Know How	827 (70)	167 (67)	386 (67)	157 (77)

TABLE 2

Survey Responses to Proposed Professionalism Milestones by Role*

		Agree or strongly agree, n (%)								
		Program Director N = 750	Associate PD N = 74	CCC Chair N = 59	CCC Member N = 107	DIO N = 53	Faculty N = 192	Program Coord N = 237	Institutional Coord N = 17	Other N = 58
PROF 1	1 – Should Use	669 (89)	67 (91)	53 (90)	98 (92)	51 (98)	177(93)	227 (96)	17 (100)	54 (94)
	2 – Understand	699 (93)	72 (98)	54 (92)	100 (94)	49 (94)	179 (94)	229 (97)	17 (100)	55 (96)
	3 – Know How	585 (78)	58 (79)	46 (80)	90 (85)	39 (74)	152 (80)	212 (90)	14 (86)	53 (92)
PROF 2	1 – Should Use	652 (87)	64 (87)	47 (81)	97 (91)	50 (96)	175 (91)	224 (95)	17 (100)	54 (94)
	2 – Understand	684 (91)	70(95)	49 (84)	102 (96)	51 (98)	181 (95)	227 (96)	17 (100)	54 (94)
	3 – Know How	604 (81)	59 (81)	51 (88)	89 (84)	49 (87)	168 (88)	216 (91)	17 (100)	54 (94)
PROF 3	1 – Should Use	568 (76)	60 (82)	42 (72)	78 (73)	48 (92)	149 (78)	221 (93)	15 (93)	46 (80)
	2 – Understand	632 (84)	65 (89)	46 (79)	88 (83)	47 (90)	161 (84)	224 (95)	17 (100)	47 (82)
	3 – Know How	493 (66)	44 (60)	36 (63)	66 (62)	29 (55)	132 (69)	231 (98)	15 (93)	39 (68)

Abbreviations: CCC, clinical competency committee; Coord, coordinator; DIO, designated institutional officials; PD, program director; PROF, professionalism.

Discussion

Medical professionalism represents a belief system about how to best organize and deliver health care.[21] Its foundational purpose is to ensure that physicians are worthy of patient and public trust, and its value is underscored by the many benefits it offers for both patients and health care organizations.[22,23] Conversely, unprofessional or unethical behavior has been repeatedly shown to be a significant factor in disciplinary action against medical students, residents, and physicians in practice.[24,25] Graduate medical education is the final formative stage of a trainee's development into a competent physician. Failure to educate, assess, or remediate in the areas of ethical and professional behavior can have negative consequences that adversely affect physicians' quality of life and well-being, their ability to provide quality patient care, and their interactions with colleagues.[26] Despite its importance, professionalism has historically been difficult to define and challenging to measure.[27–29]

At the same time, professionalism is increasingly accepted as a competency that can be taught and assessed.[30] In this context, 3 professionalism frameworks have emerged: virtue-based professionalism, behavior-based professionalism, and professional identity formation. The behavioral view, which defines professionalism as a set of behaviors enabled by specific skills, is well-suited for a developmental, milestones framework.[31] In keeping with this view, the subcompetencies selected by the workgroup identify attributes of professionalism relevant across specialties, and the associated milestones provide concrete, behavioral indicators of increasing competence in professionalism. The lower agreement ratings by program directors and clinical competency committee members may reflect their experience with milestone-based assessments and the associated challenges.

Conclusion

The stakeholder survey confirmed broad agreement with the proposed harmonized professionalism milestones across specialties and graduate medical education stakeholder roles. Together with the engagement of a multidisciplinary expert panel in their development, these findings provide content validity evidence supporting the use of these milestones to assess the development of competence in professionalism among graduate medical education trainees. The use of concrete, behavioral indicators may increase interrater reliability, bolstering the response process validity of milestone-based assessments, and their use in fostering and remediation of professionalism during graduate medical education. Finally, the creation of harmonized professionalism milestones may enhance validity from consequences of testing by promoting more consistent approaches to the instruction and assessment of professionalism across training programs, enabling organizational rather than program-level interventions, and facilitating the development of shared assessment tools.

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