PRiMER
peer-reviewed reports in medical education research
research brief

Faculty Competencies: An Exploration of Feasibility and Acceptance

Priyanka Tulshian, MD, MPH | Bharat Gopal, MD, MPH | Tina Kenyon, MSW, ACSW

PRiMER. 2022;6:32.

Published: 8/30/2022 | DOI: 10.22454/PRiMER.2022.111657

Abstract

Introduction: A uniform method of iterative professional development for medical educators does not exist in the United States graduate medical education system. The Society of Teachers of Family Medicine Faculty Competencies Special Project Team, a subgroup of the Faculty Development Collaborative, sought to create a competency-based assessment framework for medical educators. This paper describes the feasibility and acceptance of a draft competencies resource using a survey.

Methods: A mixed-methods, ten-question survey to assess the feasibility and acceptance of the draft competencies resource was created and distributed to medical educators through educational contacts from October 2019 to November 2019.

Results: Eighty-six surveys were completed. Of the 86 respondents, 48 (55%) answered all the survey questions. Thematic analysis for acceptance of the draft yielded three groups, the accepting, neutral, and nonacceptance groups. Each group had distinct characteristics regarding the likelihood of accepting and using the draft competencies.

Conclusions: The draft competencies are thought to be feasible, with overall acceptance in the current form. Further research will guide revisions of the competency resource before final distribution.

Introduction

As residencies frame curricula and evaluation around competency-based medical education (CBME), there are calls for medical educators to view professional development through a similar lens.[1-4] Traditionally, faculty success focuses on the clinicians' breadth of medical knowledge.[5,6] Given the expectations of medical educators' expertise beyond clinical knowledge in domains such as teaching, advocacy, and scholarship, there is need for ongoing and iterative professional development.[3,4,7-10]

A literature review highlighted formal faculty development programs, national conferences, and expert panels that attempt to address this need, but they are uniform in neither content nor delivery. [3-5, 7-11] The Faculty Competencies Special Project Team, a subgroup of the Faculty Development Collaborative within the Society of Teachers of Family Medicine (STFM), created a resource that addresses gaps in medical educator professional development. It contains domains and behaviors addressing the diverse skills a medical educator may acquire.[12-14]

The study objective was to assess the draft faculty competencies using a survey to identify common respondent themes and evaluate the competencies' comprehensiveness, flexibility, acceptance, and implementation. Study results will be incorporated into the revised version.

Methods

The faculty competencies were collaboratively created by the STFM Faculty Competencies Special Projects Team, supported by a needs assessment and literature review. An example domain is shown in Figure 1.

Using a mixed-method study design, we developed a 10-question survey that investigated demographics, feasibility with quantitative Likert scales, and acceptance with qualitative open-ended questions (Figure 2). Prior to dissemination, the survey underwent cognitive testing by steering committee members who reviewed and answered the survey questions to ensure the responses would accurately measure what was intended.[15,16]

The survey was distributed from October 2019 to November 2019. Distribution occurred through an STFM Faculty Development Collaborative listserv posting and emails to educational contacts of 14 members of the Faculty Development Special Project Steering Committee. Voluntary enrollment concluded once the study investigators determined that thematic saturation was achieved. Thematic saturation was reached when repetition and consistency in survey responses were observed.[17] We analyzed quantitative data with standard descriptive and frequency analyses using Microsoft Excel 2020 (Microsoft Corp., Seattle, WA). Three study investigators independently conducted a qualitative thematic analysis of the open response data. After independent review, they compared results and reached consensus on major themes.

The Samaritan Health Services Institutional Review Board reviewed the study protocol and determined it to be exempt.

Results

Eighty-six surveys were completed with at least one question answered. Forty-eight (55%) respondents completed all the questions (Table 1). We did not calculate the response rate as the survey was distributed to an unknown number of educational contacts. We excluded incomplete surveys from analysis. A demographic analysis revealed that there were no differences between incomplete and complete survey populations.

Twenty-three respondents (48%) stated that they were "very likely" or "likely" to use the draft competencies (Table 2).

Three distinct groups emerged from the thematic analysis of the open responses regarding educator acceptance of the faculty competencies (Table 3).

Conclusions

The survey of medical educators to evaluate the feasibility and acceptance of the faculty competencies created by the STFM Faculty Competencies Special Project Team yielded useful information**.** The mixed-methods survey allowed for quantitative and qualitative data collection. Nuances in discrete and thematic analysis accounted for discrepancies in respondent categorization for feasibility and acceptance. While 48% of respondents found the draft competencies feasible, thematic analysis resulted in differences when addressing willingness to adopt the competencies. The results identified key characteristics of the surveyed cohort who would accept and potentially adopt the content and those who would not accept it.

The nonacceptance group (27%) viewed the competencies as lengthy, complex, ambiguous, and at times redundant. There were concerns with how the competencies would be implemented. This group felt the competencies were unnecessary; rather than enhancing faculty development, they would cause confusion and perhaps even harm. Additionally, respondents in this group had preexisting assessments in place or did not believe in the need for faculty competencies. It would likely require significant revisions to the competencies' format and content for this group to consider acceptance.

The neutral group (29%) felt the faculty competencies provided a missing faculty development resource. However, the group had concerns about the competencies' complexity and operationalization within educational programs. In addition, this group wanted clarification around certain domains and behaviors. This group would feel more comfortable using the competencies if further iterations addressed these concerns and reduced ambiguity.

The accepting group (44%) favored the feasibility and acceptance of the competencies. This group agreed they provide an avenue for goal setting, self-assessment, and professional development. The group visualized the competencies' implementation in several settings, including with new faculty. Thus, this group would likely use the competencies regularly within their educational programs.

Themes identified within the nonacceptance and neutral groups highlight the need to provide instruction on the intent of the competencies. Additionally, the domains and behaviors will be reviewed, revised, and simplified to facilitate understanding. Future iterations will reduce ambiguity and provide a succinct competency resource. Ultimately, the critique of the nonacceptance and neutral groups will be incorporated in future versions with the overall goal of near-universal acceptance.

There are several limitations to this study. Sampling bias and a small sample size with an unknown response rate limit the ability to generalize the quantitative data to a larger population or demonstrate applicability of the qualitative data to other groups from different backgrounds and demographic areas. Future iterations can be improved with larger sample size across multiple disciplines. Additionally, while some groups were neutral to nonaccepting of the competencies, selection bias is still a threat to validity. We attempted to mitigate this possibility by creating questions on similar topics in various forms to triangulate toward a theme.

Future research for the faculty competencies includes a systematic review currently in process that will aid future iterations. Subsequently, we will conduct a modified Delphi study to create a version of the faculty competencies that will be published and disseminated. Once published, an additional, anticipated study would assess faculty behavior change and institutional impact.

Tables and Figures

Figure 1: Sample Domain With Developmental Competency

Domain/Competency/Behavior

Domain: ***Teaching***

	Behaviors			
	Level A	**Level B**	**Level C**	**Level D**
Competency: Goals and Expectations	Communicates clear expectations to learner at the start of educational experience	Clarifies roles and responsibilities with learners and (clinical/educational) team	Collaborates with learner and team to adjust expectations based on learning context	Fosters accountability of learner and team to collaboratively meet responsibilities

Advancing skill

Figure 2: Survey Questions

1. What are your initial impressions of this tool? (Open-ended)
2. Does the content capture the primary areas upon which family medicine educators should focus their development? (Yes/no with comment)
3. Please identify what would you change or delete from the competencies or behaviors. If none simply state "none." (Open-ended)
4. Please identify any behaviors that are ambiguous. If none, simply state "none." (Open-ended)
5. Please identify any other competencies or behaviors that would be important to consider including. If none, simple state "none." (Open-ended)
6. What potential applications do you see for this tool? (Open-ended)
7. Would using this tool contribute to goal clarity and potentially enhance your professional development? (Yes/no with comment)
8. How likely are you to use this tool? (Likert-style: Very likely, likely, unlikely, very unlikely
9. What are your suggestions for dissemination of this tool? (Open-ended)
10. General comments (Open-ended)

Table 1: Survey Respondent Demographics

	All-Question n (N=48)	%	Average	SD
What is your age (in years)?			50.3	10.4
What is your current work setting?				
Medical school department	5	11		
Residency program, university-based	10	21		
Residency program, community-based, university affiliated	24	51		
Residency program, community-based without university affiliation	8	17		
Other (please specify)	1	2		
How would you describe your geographic setting?				
Urban	24	51		
Suburban	17	36		
Rural	7	15		
What is the size of your program/department/school? (Enter all applicable)				
Number of faculty:			30.7	35.5
Number of students:			223.6	320.6
Number of residents:			28.4	11.4
What is the approximate age of the program or department (in years)?			35.6	13.3
How many years have you been in medical education?			17.0	11.4
What is your professional affiliation? (Choose all that apply)				
Physician	40	85		
Advanced practice clinician	0	0		
Behavioral health	5	11		
Education specialist	1	2		
Faculty developer	0	0		
Pharmacist	1	2		
Ethicist	0	0		
Research faculty	1	2		
What is your current role(s) in your program? (Choose all that apply)				
Department chair	2	4		
Residency program director	9	19		
Researcher	2	4		
Full-time faculty	36	77		
Community faculty	0	0		
Associate program director	4	9		
Medical director	1	2		
Director, behavioral health	1	2		
Part-time faculty	2	4		
FD director	1	2		
Academic PD	1	2		
Medical school dean	1	2		
Clerkship director	1	2		
Director of osteopathic education	1	2		

Table 2: Responses to Dichotomous and Likert-Style Questions

Question #2 (Capture the Primary Areas):	n	%
Yes	37	77
No	11	23
Question #7 (Goal Clarity/Professional Development):		
Yes	20	42
No	4	8
Blank	24	50
Question #8 (Likely to Use Tool):		
Very likely	4	8
Likely	19	39.5
Unlikely	18	37.5
Very unlikely	7	15

Table 3: Groups Determined From Thematic Analysis With Exhibits

Group	Number of Respondents (%)	Comments
Accepting group	21 (44)	"As a residency director, I am mandated to do faculty reviews by the ACGME. This could be a helpful tool for self-assessment and then assessment." "As it stands, goals are ambiguous and not standardized across different programs. This would not only alleviate ambiguity but would help faculty establish and maintain their own goals for personal growth." "I think this is a really good onboarding tool for new faculty to help orient to what the expectations are, and a really good tool for reviewing progress/performance at evaluation time." "Establishes a metric to objectively assess faculty growth and development." "It would be good for yearly evaluations in our department and to help junior faculty target their own development." "It will help with self and professional development as well as goal setting for performance evaluations."
Neutral group	14 (29)	"Comprehensive, detailed, perhaps to the point of being overwhelming." "Interesting concept and a potentially helpful way to assess or provide feedback to faculty. Too long as structured to be something that is easily completed." "Good as a reference, impossible to standardize or utilize for concrete measures." "I think the idea is good but the tool is too complicated. I would have difficult completing this form and making distinctions between the levels." "Possibly if I was able choose areas of interest/value to me." "If it was more practical to apply, I might use it." "Would only be of significant use if our entire program fac and PD agree to use it"
Nonacceptance Group	13 (27)	"Admittedly my initial impression is 'I don't get it.' Not so much the tool itself, but the question of need. There are so many tools and so many surveys and so many assessments that are circulating in so many areas that I can't help but fear 'another one.' Fears aside, the list of the competencies and behaviors seems comprehensive. Not quite sure how some would be measured or operationalized." "Too ambiguous wording. Selecting rubric cubes is somewhat demeaning and is very subjective. My best evaluations have been an honest discussion of strength and weakness, not selecting boxes." "It is pretty subjective in multiple areas." "Too complicated and i think the length and complexity would compromise thoughtful attention" "We use a tool that was developed internally for annual faculty evaluation that parallels milestones and is briefer. We do an annual needs assessment to guide our faculty development curriculum" "We have tools in place that we have worked on" "Not really helpful or individual, too long"

Analysis from survey questions 1-7, 9-10.

Acknowledgments

The authors acknowledge Olivia Pipitone, MPH, for her help with structuring the data in Table 1.

Corresponding Author

Priyanka Tulshian, MD, MPH

2500 Alhambra Ave, Martinez, CA 94553. 925-370-5000.

Priyanka.tulshian@cchealth.org

Author Affiliations

Priyanka Tulshian, MD, MPH - Contra Costa Family Medicine Residency, Martinez, CA

Bharat Gopal, MD, MPH - Samaritan Family Medicine Residency, Corvalis, OR

Tina Kenyon, MSW, ACSW - NH Dartmouth Family Medicine Residency, Concord, NH

References

1. Iobst WF, Sherbino J, Cate OT, et al. Competency-based medical education in postgraduate medical education. Med Teach. 2010;32(8):651-656. doi:10.3109/0142159X.2010.500709
2. Dath D, Iobst W, Collaborators IC. The importance of faculty development in the transition to competency-based medical education. Med Teach. 2010;32(8):683-686. doi:10.3109/0142159X.2010.500710
3. Heath JK, Dine CJ, Burke AE, Andolsek KM. Teaching the teachers with milestones: using the ACGME Milestones model for professional Development. J Grad Med Educ. 2021;13(2)(suppl):124-126. doi:10.4300/JGME-D-20-00891.1
4. Milner RJ, Gusic ME, Thorndyke LE. Perspective: toward a competency framework for faculty. Acad Med. 2011;86(10):1204-1210. doi:10.1097/ACM.0b013e31822bd524
5. Harris DL, Krause KC, Parish DC, Smith MU. Academic competencies for medical faculty. Fam Med. 2007;39(5):343-350.
6. Dickerman J, Sánchez JP, Portela-Martinez M, Roldan E. Leadership and academic medicine: preparing medical students and residents to be effective leaders for the 21st century. MedEdPORTAL. 2018;14:10677. doi:10.15766/mep_2374-8265.10677
7. Carraccio C, Englander R, Van Melle E, et al; International Competency-Based Medical Education Collaborators. Advancing competency-based medical education: a charter for clinician--educators. Acad Med. 2016;91(5):645-649. doi:10.1097/ACM.0000000000001048
8. Hitchcock MA, Stritter FT, Bland CJ. Faculty development in the health professions: conclusions and recommendations. Med Teach. 1992;14(4):295-309. doi:10.3109/01421599209018848
9. Leslie K, Baker L, Egan-Lee E, Esdaile M, Reeves S. Advancing faculty development in medical education: a systematic review. Acad Med. 2013 Jul;88(7):1038-45. doi: 10.1097/ACM.0b013e318294fd29.
10. Steinhart Y. Faculty development in the new millennium: key challenges and future directions. Med Teach. 2000;22(1):44-50. doi:10.1080/01421590078814
11. Gonzalo JD, Ahluwalia A, Hamilton M, Wolf H, Wolpaw DR, Thompson BM. Aligning education with health care transformation: identifying a shared mental model of “new” faculty competencies for academic faculty. Acad Med. 2018;93(2):256-264. doi:10.1097/ACM.0000000000001895
12. Srinivasan M, Li STT, Meyers FJ, et al. “Teaching as a Competency”: competencies for medical educators. Acad Med. 2011;86(10):1211-1220. doi:10.1097/ACM.0b013e31822c5b9a
13. Gopal B, Johnson B, Kenyon T, Clark J. Faculty milestones: forming a path to greater accountability and transparency. STFM Resource Library. Posted January 24, 2019. Accessed February 10, 2019. https://resourcelibrary.stfm.org/viewdocument/faculty-milestones-forming-a-path?CommunityKey=2751b51d-483f-45e2-81de-4faced0a290a&tab=librarydocuments
14. Johnson B, Kenyon T, Boltri J, Gopal B. Bridging the gap: Examining the implications of implementing universal developmental milestones for faculty. STFM Resource Library. Uploaded January 24, 2019. Accessed February 10, 2019. https://resourcelibrary.stfm.org/viewdocument/bridging-the-gap-examining-the-imp-1?CommunityKey=2751b51d-483f-45e2-81de-4faced0a290a&tab=librarydocuments
15. Cognitive Testing (presentation slides). Harvard University Program on Survey Research. Accessed May 27, 2022. https://psr.iq.harvard.edu/files/psr/files/CognitiveTesting_0.pdf.
16. Cognititive Interviewing. CDC National Center for Health Statistics. Accessed May 27, 2022. https://www.cdc.gov/nchs/ccqder/evaluation/CognitiveInterviewing.html

17. Braun V, Clarke V. Thematic analysis. In: Cooper H, Camic PM, Long DL, Panter AT, Rindskopf A, Sher KJ, eds. APA handbook of research methods in psychology, Vol. 2. Research designs: Quantitative, qualitative, neuropsychological, and biological (pp. 57–71). American Psychological Association; 2012. doi:10.1037/13620-004