

Incentives and Barriers for Early Career Faculty Participation in Medical Student Education: Perceptions of Clinical Faculty From a Midwestern Public Medical School

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ABSTRACT

Introduction: Physician faculty play key roles as medical student educators, often opting into these roles early in their careers. The incentives and barriers for early career faculty participation in medical student education have not been well elucidated.

Objectives: This quality improvement project examined the incentives and barriers perceived by early career faculty in 2 large clinical departments (Medicine and Surgery) at the University of Wisconsin School of Medicine and Public Health (UWSPMH) and identified potential improvements to support participation and satisfaction in medical student education.

Methods: We conducted a qualitative quality improvement project using semistructured interviews with 22 early career faculty from the Department of Medicine and the Department of Surgery at UWSPMH during June and July 2023. Interviews were analyzed using inductive thematic analysis.

Results: Among 22 early career faculty interviewed (11 from Medicine, 11 from Surgery), the top incentives for participation included personal fulfillment (72% Medicine, 81% Surgery) and promotion (45% Medicine, 36% Surgery). The main disincentive for both groups was lack of time (81%). Suggested improvements included increased protected time, financial incentives, enhanced faculty development, and clearer communication of teaching opportunities.

Conclusions: Participants from both departments agreed that key incentives for participation in medical student education include personal fulfillment and a clear path to promotion, whereas time constraints remain the major disincentive. Potential solutions include increased protected time and more organized communication of teaching opportunities.

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INTRODUCTION

Physician faculty members are core teachers throughout medical student education (MSE) – as lecturers, small-group facilitators, and clinical instructors. Their value is especially pronounced when modeling clinical skills, reasoning, decision-making, and professionalism, which affects how students will ultimately relate to and teach patients as independent providers.¹ Faculty mentors also guide development from new student to independent physician by providing education in the “soft skills” not included in the formal curriculum, such as delivering bad news and developing confidence in making diagnoses and impactful medical decisions.² Students cannot reach their full potential as compassionate and confident physicians through textbooks alone; this process requires relationships with physicians willing to serve as educators.

The literature has well documented incentives and barriers to participation in MSE. Major incentives include appreciation for teaching efforts, sufficient time

for teaching, paying it forward, supporting student development, interacting with student enthusiasm, maintaining up-to-date knowledge, viewing teaching as integral to the physician role, and finding the work personally energizing.³⁻⁸ Barriers include difficulty balancing teaching with other duties, lack of recognition by leadership, insufficient faculty development programming, unmotivated students, lack of academic community, poor teaching facilities, and a lack of enjoyment of teaching.^{4-6,9} Though studies have identified incentives and barriers for academic faculty in general,

a gap remains regarding how these factors specifically influence early career faculty. While some physicians transition into education later in their careers, most opt in early, making early career perceptions of incentives and barriers an important and previously unexplored hinge point.¹⁰

Like many academic health centers, the University of Wisconsin School of Medicine and Public Health (UWSMPH) and its major integrated health system, UW Health, explicitly highlight the importance of education in mission, vision, and strategic planning documents. Despite this commitment, it remains unclear how early career faculty at UWSMPH perceive advancement through educational excellence, or whether educational contributions are viewed as being valued and supported to the same degree as research or clinical expertise. Some faculty have also implied to authors that involvement in MSE lacks sufficient financial compensation compared to other professional activities. With this in mind, we questioned whether faculty in higher-salary range specialties may be disincentivized to participate in MSE. Varying support and compensation structures across departments may influence participation in MSE by early career faculty and affect their satisfaction and desire to pursue medical education pathways. While UWSMPH will benefit directly from this quality improvement study conducted, the authors intended for the findings to be broadly applicable to public academic health centers, where a significant portion of undergraduate and graduate medical education is delivered.¹¹

This quality improvement (QI) project had 2 primary goals. The first was to better understand the incentives and barriers perceived by early career faculty in 2 large clinical departments at a single institution – the UWSMPH departments of surgery and medicine – which include both procedural and cognitive physician services and research arms. The second goal was to help identify and prioritize opportunities at UWSMPH and beyond to improve early career faculty participation in MSE and enhance satisfaction with medical student teaching and leadership experiences.

METHODS

Project Design

This was a qualitative interview-based QI project. It was deemed “not research” and did not require Institutional Review Board review based on the University of Wisconsin-Madison QI/Program Evaluation Self-Certification tool accessed on May 26, 2023. Informed consent was obtained verbally before each 30-minute interview, with explicit clarification that participant identity would remain anonymous and responses would be used in this QI study.

A semistructured interview protocol was created by the author team (AR, AS, EMP) and included 8 questions with follow-up probes depending on participants’ initial responses. The protocol was informed by literature review and discussions with 3 UWSMPH physician education leaders (the Department of

Table 1. Participant Demographics

| | Medicine % (Ratio) | Surgery % (Ratio) |
|---|-----------------------|----------------------|
| Involvement in medical education | | |
| Didactic education | 82 (9/11) | 91 (10/11) |
| Clinical education | 100 (11/11) | 100 (11/11) |
| Appointed medical education positions | 9 (1/11) | 36 (4/11) |
| Specific title for medical education beyond assistant professorship | 9 (1/11) | 55 (6/11) |
| Appointed full-time equivalent (FTE) for medical education | | |
| >0.1 FTE | 9 (1/11) | 0 (0/11) |
| ≤0.1 FTE | 9 (1/11) | 18 (2/11) |
| 0 FTE | 64 (7/11) | 82 (9/11) |
| Unsure | 18 (2/11) | 0 (0/11) |
| Time spent each week on medical education duties | | |
| <2 hours | 30 (3/10) | 18 (2/11) |
| 2–4 hours | 40 (4/10) | 55 (6/11) |
| 5–8 hours | 10 (1/10) | 9 (1/11) |
| >8 hours | 20 (2/10) | 18 (2/11) |
| Protected time for medical education duties | | |
| Yes | 33 (3/9) | 43 (3/7) |
| No | 67 (6/9) | 57 (4/7) |

Surgery vice chair of education, the associate dean of medical education, and the Department of Medicine vice chair of education; see Acknowledgements). The protocol was used with all participants, and questions were asked in the same order. The 8 questions explored participants’ roles in MSE; involvement, compensation, and protected time; perceived incentives and disincentives; the influence of salary on pursuing academic medicine; potential improvements to support engagement; reasons colleagues may decline greater involvement; and initial motivations for participation.

Participant Recruitment

We recruited early career faculty members to participate in interviews from June 19 through July 20, 2023. Early career faculty were defined as those holding the title of “assistant professor,” which at our institution is given to faculty directly out of residency or fellowship and is typically held for 5 to 7 years before promotion to associate professor. We extracted a subset of employed physician faculty with email addresses who met inclusion criteria from a public-facing health system website. Inclusion criteria included holding an assistant professor title, having MD/DO qualifications, and being employed in either the Department of Surgery or the Department of Medicine within the clinical teacher, clinical health sciences, or tenure tracks. Participants were not required to have formal education roles so that perspectives would include those engaged only in the basic educational responsibilities expected of all UWSMPH clinical faculty, such as teaching rotating clerkship students. A standard invitation was sent to all eligible candidates.

Participants were enrolled on a first-response basis. Forty-one

Table 2. Exemplary Responses to Interview Questions

| Theme Identified | Illustrative Participant Quote |
|--|--|
| Question: What do you think, if any, are the current incentives to participate in medical student education? For you specifically and other ECF in your department? | |
| Personal fulfillment | "I don't know if there's any explicit incentive other than wanting to personally be involved in education and staying true to the academic mission." (S) |
| Promotion | "I think it, to a lesser role, it is sort of abstractly involved in promotion." (M) |
| Recognition | "... participating in the [formal education role] program where their benefit is very tangible, right? They have FTE buyout for it." (M) |
| Continuing education | "I feel that means that I stay up on kind of basic skills." (M) |
| Contribution to institution | "I don't know if there's any explicit incentive other than wanting to personally be involved in education and staying true to the academic mission." (S) |
| Salary | "If you're able to make a more compelling story that you are contributing this way, then maybe you'll get additional time that's compensated to do that for your academics." (M) |
| Question: What kinds of things discourage or disincentivize you or your colleagues from participating in medical student education? | |
| Time | "If you have a really busy service, it's harder to fit that [medical education] in. Or if you're going to fit it in, you're going to have to be sacrificing other things like time with patients, time on your other work obligations or your own time, your time with your family." (M) |
| No financial incentive | "But if I had set up to start my career and I said, 'I really would like to make the most money that I can,' for whatever reason, I wouldn't have chosen a path to medical education." (M) |
| Disorganized teaching opportunities | "It was a little challenging at first to sort of just understand what was needed. We get a lot of emails saying, 'can you do this? Can you do that?'" (S) |
| Do not understand medical school curriculum | "...no exposure to the med school and the med school curriculum here, or even the expectations of the students who rotate on the services, sometimes it's hard to know...where to insert yourself." (S) |
| Question: What changes would enhance your experience or better support your role as a medical student educator? | |
| Protected time | "Maybe having a magical time clock that would give more time during the day." (S) |
| Financial incentive | "... if there was a way to standardize the education salary available for FTE involvement in med school that was somehow tiered or matched with your physician salary." (S) |
| Faculty development opportunities | "...maybe a formalized curricula that faculty can sign into on a yearly or twice a year..in terms of teaching styles, techniques, new concepts, something to continue to enhance our ability to teach, and some behaviors around that." (S) |
| Recognition of efforts | "... there were some systematized way to recognize the time that individuals are putting in. And either simply just recognize that – have your division head aware or your department chair aware of how much you're doing." (M) |
| Improved structure for promotion | "... there's a path to be promoted along medical education. The tricky thing with that path is it's not as well flushed out... I'm going along the medical education route for promotion... it's not just about putting in hours teaching, it's actually about doing something scholarly in that world, and nobody's ever really taught me how to do that so I'm sort of trying to figure it out on my own." (M) |
| More organized hub of sharing teaching opportunities | "I think perhaps having a central location for current opportunities and in a timeline. Because I feel like we often get emails about different opportunities that exist. But it's sort of haphazard." (M) |
| Abbreviations: ECF, early career faculty; M, medicine participant; S, surgery participant; FTE, full-time equivalent. | |

emails were sent to surgery faculty, yielding 21 responses (11 enrolled, 5 declined, 5 informed that enrollment was closed). Sixty-seven emails were sent to medicine faculty, yielding 18 responses (11 enrolled, 2 declined, 5 informed that enrollment was closed). Equal numbers of participants were enrolled from each department to achieve thematic saturation.¹²

Participants could choose in-person (2 of 22) or virtual (20 of 22) interviews. All interviews were conducted by 1 researcher (AR), who audio recorded, transcribed using a Google transcription program, and manually edited for accuracy. At the time of the interviews, the interviewer was a medical student, whose positionality and potential bias – particularly regarding specialty preferences – may have shaped some conversations.

Data Analysis

Inductive thematic analysis was used. After familiarizing them-

selves with the transcripts, 3 authors (AR, AS, EMP) developed a codebook based on frequently occurring and unique participant responses. Two independent coders (AR, LC) then reviewed each interview in depth and assigned existing or newly generated codes. Codes were compared across interviews, consolidated, and organized into themes. Discrepancies were resolved through discussion until consensus was reached, with each coder explaining their rationale. All authors (AR, AS, LC, EMP) reviewed, refined, and named the final themes to reflect recurring and unique participant experiences. Themes that appeared only once or twice were grouped in an "other" category.

RESULTS

Twenty-two early career faculty members completed interviews: 11 from the Department of Medicine and 11 from the Department of Surgery.

Most participants indicated that they did not receive salary support specifically for MSE duties (91% surgery participants, 80% medicine participants), and most reported that medical education did not affect their salary (86% surgery participants, 83% medicine participants). When asked whether salary considerations affected their decision to take on an MSE role, 9% of surgery participants and 0% of medicine participants said yes. When asked whether salary influenced their decision to work at an academic medical center, 27% of surgery participants and 64% of medicine participants responded yes.

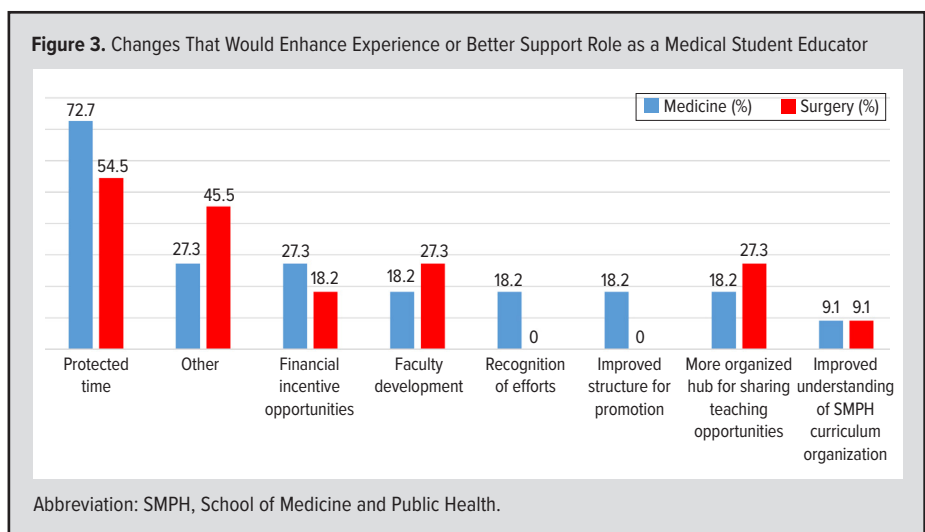
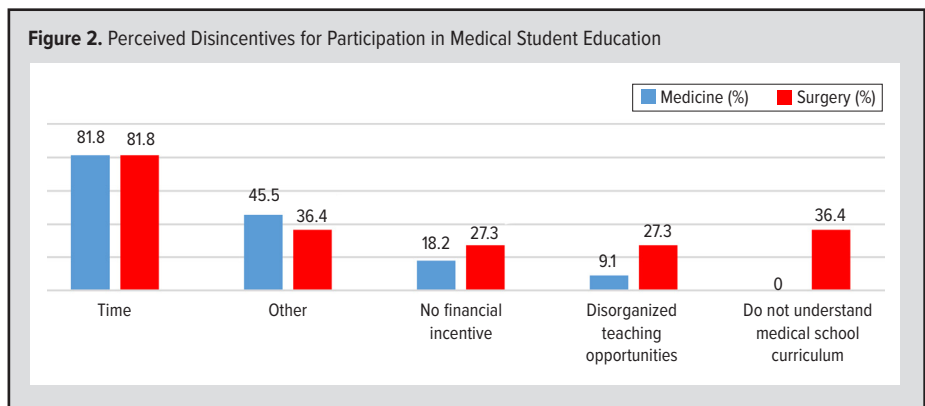
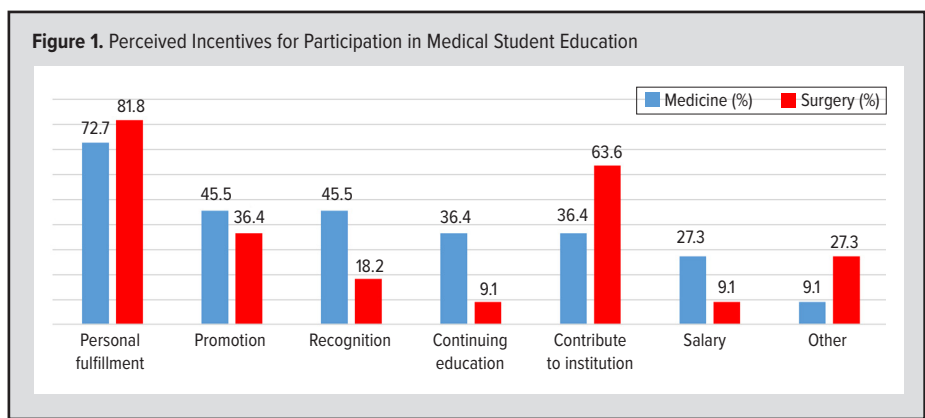
Most participants (57% surgery participants, 67% medicine participants) reported that they did not have protected time for education duties. Of those who did, two-thirds agreed that the time allotted was sufficient to achieve their weekly medical education goals. When asked whether they had sufficient time to meet their MSE role expectations, participants from both departments were evenly divided: 50% indicated they had enough time, whereas 50% did not.

When asked whether the recent pandemic resulted in persistent barriers to teaching, 64% of medicine participants and 82% of surgery participants said yes.

Perceived incentives and disincentives for MSE participation among both departments are shown in Figures 1 and 2. Personal fulfillment was ranked highest as an incentive (>70% medicine participants, >80% surgery participants), whereas the main disincentive cited by both groups was lack of time.

“Other” disincentives included limited flexibility in the types of material and methods of education, disengaged or unprepared learners, negative student evaluations, the visibility inherent in teaching roles, sporadic placement of learners making it difficult to foster meaningful relationships, and student “nitpicking” of politically correct language.

“Other” incentives included greater control over how material is conveyed to students, increased administrative support, more in-person teaching opportunities, better-prepared students, more longitudinal relationships with learners, and more robust feedback for educators (see Figure 3).



DISCUSSION

The most prominent incentives described by early career faculty in both the departments of medicine and surgery included personal fulfillment, opportunities for promotion, recognition of efforts, continuing education, contribution to institution, and salary. Both departments aligned on the importance of personal fulfillment and a clear path to promotion as key incentives. Of these, personal fulfillment, continuing education, and contribution to institution have been widely documented in previous literature.³⁻⁸ Medicine and surgery participants differed, however, in their emphasis on certain incentives. Medicine participants

highlighted recognition of efforts, continuing education, and salary as important, whereas surgery participants emphasized contributing to the institution.

Unsurprisingly given clinical demands, a major barrier to MSE participation across both departments was time constraints, consistent with existing literature.⁴⁻⁶ Faculty physicians in academic medical centers have responsibilities beyond clinical duties—often including teaching, nonclinical service, and research—yet the need to provide high-quality patient care and to support the fiscal stability of health systems often creates a real or perceived premium on clinical productivity over other mission areas. Physician shortages further amplify demand for a larger workforce to deliver high-quality medical care.¹³ This study identified additional barriers to MSE participation among early career faculty that have not been reported previously, including disorganized teaching opportunities and limited understanding of the medical school curriculum. The latter barrier, reported exclusively by surgery participants, may reflect the unique 3-phase integrated curriculum at UWSMPH, which may differ from the curricular structures these faculty experienced as students. It may also reflect limited dissemination of curricular information by the school or limited engagement with materials already available to faculty.

Medical education is not a high revenue-generating activity; tuition alone often does not cover the cost of delivering medical education, which instead relies on financial contributions from donors, health system operating margins, intuitional resources, and state budget allocations.¹⁴ Nonetheless, medical education remains central to the mission of academic health centers, ensuring future generations of well-trained, competent, compassionate physicians. Several participants indicated that additional protected time for education would not only incentivize their willingness to provide more teaching and contributions to education but would also promote more meaningful engagement. Notably, early career faculty in surgery described stronger salary-related barriers to MSE participation than their colleagues in medicine, which may reflect larger salary differentials between clinical and academic roles in surgical fields. It is possible that faculty in higher-earning specialties may be disincentivized from participating in MSE when educational activities reduce time available for more lucrative clinical or research endeavors.

As a QI study, a major goal of this project was to identify areas for improvement. Given that time constraints were the most significant barrier, collaboration among department and school education leaders to identify feasible solutions should be prioritized. However, providing additional protected time may be challenging given current patient and health system needs. One unique barrier identified was sporadic teaching offerings, suggesting an opportunity for improvement. A potential solution is the development of a central online portal where faculty can learn about and sign up for teaching opportunities. Participants described the current

process—receiving occasional emails from the department—as difficult for integrating unpredictable teaching requests into clinical schedules. A centralized, annotated list of teaching opportunities could benefit faculty at all careers stages and improve transparency around teaching needs.

The identified barrier of limited understanding of the medical school curriculum may be specific to UWSMPH; however, other academic institutions may also benefit from addressing this challenge to help early career faculty tailor their teaching to student needs. Additional pre-course training modules are unlikely to be effective given faculty time constraints. Instead, concise, readily accessible online micro-learning resources tailored to institutional curricula—describing expected student competencies at each stage—could be available both prior to scheduled teaching encounters and via the teaching opportunity portal for just-in-time review. Such resources may reduce time spent preparing for MSE tasks, improve satisfaction and confidence among new teachers, and reduce miscommunication about expectations between students and faculty, which can occur despite the availability of syllabi and objectives.

Limitations

This study has 3 notable limitations. First, there is potential self-selection bias, as participants volunteered to be interviewed. Faculty already invested in MSE may have been more willing to participate than those who intentionally avoid MSE involvement. Second, all participants were physicians who had chosen to work at an academic medical center, where participation in MSE is often an implicit expectation; therefore, perspectives of physicians who chose nonacademic settings to avoid medical education involvement were not captured. Third, demographic data were not collected to ensure participant anonymity; thus, potential associations between participant characteristics and perceptions could not be explored.

Future Directions

This study included early career faculty at the primary UW Health location and did not reflect perspective from statewide sites. Understanding those viewpoints will be important for implementing improvements across the system. Second, while several strategies have been proposed to address barriers at the primary site, future research could examine how other academic centers have responded to similar barriers and whether their approaches could be piloted at UW Health. Third, early career faculty identified time constraints as a major barrier, but the amount of time needed to meaningfully engage in MSE has not been well characterized; future work could address this gap. Such information would help large academic centers allocate resources to balance patient care and educational needs. Fourth, future studies could include physicians who opted out of academic settings entirely to understand their perceptions of MSE. Lastly,

although demographic data were not collected in this study, future research could explore how race, gender, ethnicity, and other identifying factors intersect with early career faculty experiences in medical education.

CONCLUSIONS

Faculty involvement in MSE is critically important for knowledge acquisition, skill development, and the professional socialization of future physicians. The greatest incentives identified for early career faculty participation in MSE were personal fulfillment, contribution to the institution, and opportunities for promotion, whereas the greatest disincentives were real or perceived time constraints and lack of financial incentives. This study identifies key areas for improvement for UWSMPH faculty physicians, including optimizing protected time for education within broader organizational missions, developing an up-to-date portal of annotated teaching opportunities, and providing more just-in-time information about the school's curriculum, learning objectives, and student expectations. Future studies could further elucidate the perceptions of early career faculty more broadly—particularly those at other academic centers and health systems—and, importantly, those perspectives of physicians who actively choose not to participate in MSE.

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