



Scholarly Collaboration, Mentorship, and Friendship: A New Model for Success in Academic Medicine

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ABSTRACT

Mentorship can be one of the most important factors in helping faculty members successfully advance academic careers. Finding effective mentorship, however, is extremely challenging and lack of mentorship may negatively impact productivity, promotion, and retention. Women, in particular, identify lack of mentorship as a major factor inhibiting career advancement, which in turn may be one element contributing to the significant gender gaps existing in academic medicine. Here, we describe a model of mentoring drawn from our personal experiences as 4 female faculty that has resulted in a successful collaboration spanning nearly a decade. This model combines different elements of mentoring models previously described in the literature into a single model of network mentoring. Our model aims to promote longitudinal, collaborative scholarship around a broad common research theme, provide long-term

mentorship focused on successfully navigating personal and academic hurdles, and create a forum of mentorship for faculty at all academic ranks. Keys to the success of our model, The Accelerate Scholarship through Personal Engagement with a Collaborative Team (ASPECT) Model, are: 1) a shared overarching research goal that allows for multiple projects to be worked on over time; 2) regular, structured meetings; 3) a collaborative yet flexible arrangement with “group accountability”; and 4) a focus on the human connection. Our goal in writing this paper is to describe, in detail, lessons learned from our experiences and reflect on why and how this model may be effective in addressing mentoring gaps many faculty members, particularly women, experience.

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MENTORSHIP IS A key component in helping faculty members achieve successful academic careers. Numerous studies have shown the benefits of positive mentoring relationships on productivity, promotion, career satisfaction, and perceptions of work-life balance.^{1,2} Conversely, academic physicians who receive inadequate mentoring experience higher rates of discontent and are more likely to abandon academic careers.³

Despite the known benefits of mentorship, finding effective mentors can be a significant challenge. This appears to be particularly true for women, who report lack of mentorship as the most critical factor inhibiting career advancement.^{4,5} Within academia, there is a well-described lack of female physicians at higher academic ranks, limiting the potential pool of senior female mentors, and making it harder to align female mentors and mentees based on shared interests.⁶ Despite generally preferring mentorship from women, particularly with regard to issues such as work-life balance, maternity leave, and career-life planning, most women in academic medicine

are mentored by men, if they are mentored at all.⁶ As a result, lack of mentorship and role modeling might be one of many factors contributing to the gender gap that continues to exist with regard to promotion, productivity, and pay, as well as the higher rates of burnout reported by female physicians.^{7,8}

While many different mentorship models exist, the most common mentorship model in academic medicine remains dyadic mentorship, typically a senior faculty member mentoring a junior faculty member.⁹ For junior faculty mentees, finding a single senior mentor with compatible interests, adequate expertise, and time to effectively devote to mentoring can be daunting. Use of mentoring networks, rather than dyadic mentoring alone, has become increasingly recognized as a potential way to better meet the diverse needs of a mentee.¹⁰

A network mentorship model increasingly popular in the business world—the Mastermind Group—seeks to cultivate a group mentoring approach in which all participants mutually benefit from the expertise and experiences

of group members.^{2,11,12} Groups are composed of colleagues at a *range of levels* in their career who participate in regularly scheduled meetings to provide guidance and career advice. The composition of Mastermind Groups is distinct from typical peer mentoring groups, which aim to eliminate the hierarchical power relationships by bringing together faculty members with *similar* relevant backgrounds, such as academic rank.¹³ Mastermind Groups are also distinct from the peer *writing* groups, in which the primary focus is scholarly productivity. A recent pilot of the Mastermind Group approach was trialed through the organization Academic Life in Emergency Medicine (ALiEM), with the majority of participants finding the experience very valuable.² In this pilot, 2 groups of 6 to 8 members from across the country completed 2 homework assignments and participated in two 90-minute video conferences focused on professional self-assessment, career trajectory, and current career challenges.

We would like to describe our experiences with a mentorship model, the Accelerate Scholarship through Personal Engagement with a Collaborative Team (ASPECT) Model, that combines different elements from Mastermind Group, peer mentoring group, and peer writing group models into a single-network mentorship model. The goal of the ASPECT Model is to promote collective scholarly productivity around a common area of interest, mentorship across and between faculty of different academic ranks, and the building of enduring friendships over time. By describing in detail our experiences and lessons learned, we believe we can help others achieve academic success and enhanced professional satisfaction.

FORMING AND SUSTAINING OUR MENTORING GROUP

Our journey began at the Association of Pediatric Program Directors (APPD) national conference in 2012. During a breakout session for those interested in research and scholarship, one of our team members expressed interest in evaluating how best to support resident scholarly activity. This led to a series of postconference phone calls and our collaboration was born. Initially, our group functioned much as a peer writing group, with joint scholarly productivity as our primary goal. We decided on a project, held regular phone calls, and saw the project through to completion. Several members of the group stopped participating after the first project, leaving a core group of 4 women from 4 different institutions across the country. Two of us were at the rank of Assistant Professor and 2 of us were at the rank of Associate Professor. With our first success behind us, we moved forward discussing our next series of projects and continued our work.

Since that time, we have consistently engaged in 1-hour phone calls twice per month, supplemented with in-person gatherings at national professional conferences biannually. The duration and frequency with which we speak, supplemented with in-person gatherings, has helped support our transformation from a peer writing group to a network mentoring group, and ultimately, a group of friends.

To optimize our productivity, we work on 2 to 3 projects at a time, in different phases of completion, with alternating members taking the lead. All members of the group collectively brainstorm project ideas and methodologic considerations, while the project lead assumes responsibility for obtaining IRB approval, moving the project forward, submitting abstracts to national conferences, and drafting (at minimum) the methods and results section of manuscripts. Not all members work on every project, depending on personal interests or competing priorities.

Our collaborative efforts have led to 7 poster and 2 platform presentations, 5 national workshops, and 6 peer-reviewed publications.^{14–19} We have attained important leadership positions within our programs, such as Vice Chair of Medical Education and Health Services Research, Vice Chair of Education, and Division Chief. Each of us has been promoted—2 to the rank of Professor, 2 to the rank of Associate Professor—since our collaboration began. This is especially noteworthy given that many women fail to achieve promotion and have significantly higher attrition rates.²⁰ We believe the academic productivity resulting from our group has been critical in facilitating these promotions.

To achieve success, we have had to overcome multiple challenges in forming and sustaining our group. Building chemistry took time. Different team members had different learning and working styles that needed to be navigated. Identifying projects that were of interest to all group members and feasible to conduct with the collective expertise was challenging, and often required several weeks of brainstorming and refining. Different institutions had different research processes, particularly with regard to institutional review boards, forcing us to budget extra time for certain projects. Last, there have been periods of prolonged time off due to illnesses or changes in career roles that have necessitated members scaling back involvement in certain projects. However, because each group member gained expertise through the ongoing collaboration, it has been easier to shift roles for tasks that early on required more senior expertise.

KEY ELEMENTS OF THE ASPECT MODEL

There are several elements integral to the success of our model: 1) a shared overarching research goal; 2) regular, structured meetings; 3) a flexible and collaborative arrangement with “group accountability”; and 4) a focus on the human connection (Figure).

An important feature of the ASPECT model is the longitudinal focus on joint scholarly productivity around a common theme of interest—in our case, scholarly activity training for residents and fellows. This topic is broad enough to allow for a wide array of studies, and, because it is in-line with the core interests of each group member, it continues to stay professionally relevant to each of us. A recent publication about a successful residency peer writing group similarly noted the importance of bringing together residents with shared common research and

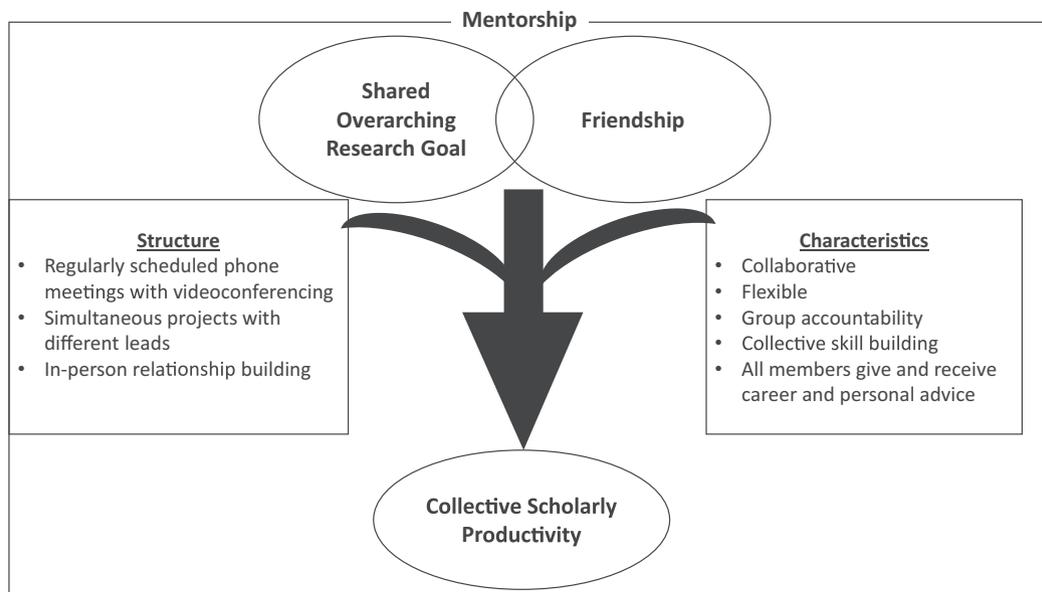


Figure. *The Accelerate Scholarship through Personal Engagement with a Collaborative Team (ASPECT) model.*

career interests.²¹ However, as a peer writing group, their primary focus group was on scholarly productivity, rather than navigating personal and professional challenges, which are likely to be quite different as a trainee versus a junior or senior faculty member.

Engaging in multiple projects simultaneously, with different members alternating taking the lead, has enhanced our productivity. For example, while data collection for one project is ending, we brainstorm the ideas for the next project so we can simultaneously work on manuscript writing for the first project and obtain institutional review board approval for the second project. We always specify author order and responsibilities at the outset and rotate opportunities for primary project ownership. Others have similarly noted the importance of delineating roles at the outset of any collaborative writing project.²¹

Identifying the research strengths of each team member has allowed us to best capitalize on these strengths when choosing projects or dividing work. For example, one member had experience submitting a comprehensive research curriculum to MedEdPORTAL, so our group chose to focus our early projects on submitting research toolkits to MedEdPORTAL.^{18,19,22} Another member had expertise in survey design, which helped facilitate the group's first prospective data collection project, a national survey of pediatric program directors.¹⁵ At the same time, we have also challenged each other to acquire new skills by engaging in projects using less familiar methodology, such as conducting a systematic review or drafting this perspective piece. Acquiring new skills in a supportive environment has enhanced each member's intrinsic motivation to keep learning and collaborating, a finding similar to the experience of others.²¹ Importantly, by disseminating our work at national meetings and through publication, we have built a reputation as a productive group, resulting in others asking to collaborate on projects

that are an extension of our work. This has led to additional presentations, publications, and professional exposure.^{17,19}

Since the start of our collaboration, we have held bi-weekly, 1-hour calls, which are scheduled for the entire academic year. Blocking consistent time on the calendar has helped routinize our meetings and overcome one of the most frequently cited barriers to effective mentoring, lack of time prioritized for the mentorship relationship.^{1,23} At the same time, we are flexible in moving a phone call or scheduling an interim phone call if group members have a conflict or need additional time to advance a project. Each call has a focused agenda consisting of topics for discussion and relevant attachments for review, typically developed by the member whose project is in its most active stage. After the call, clearly delineated action items and timelines for completion are distributed via email and reviewed 2 weeks later. Use of remote video conferencing technology, such as Zoom meeting or WebEx, provides a platform through which we can add documents to be reviewed to the day's agenda and share documents across screens and review and edit materials simultaneously. With this technology, any invited person can begin the meeting, even if the "host" is unavailable or running late. While timelines are flexible, if a team member encounters unexpected barriers, others will move the project forward. Accountability is another important characteristic of effective mentoring relationships.¹ By maintaining "group accountability," we have avoided the pitfall of having projects significantly stalled due to unexpected challenges faced by one group member.

Cultivating mentoring relationships and friendships has been as important a part of our model as promoting academic productivity. We have invested time to develop a connection to each other that goes beyond our academic interests and allows the group to provide psychosocial

support to each member. We start each phone call with a discussion of what is going on in our personal and professional lives and delay our agenda to help each other navigate challenges as needed. Obtaining advice from others not in our supervisory hierarchy and not entrenched in the politics at our home institution has been invaluable, although the ASPECT model could be composed of members entirely from within one's home institution. In addition, at mutually attended professional meetings, we always make time for in-person activities, typically "breaking bread together" over a meal.

The importance of friendship and sense of community which has facilitated success in our ASPECT model has also been emphasized in business literature and in literature on female scholars across other academic disciplines.²⁴ For example, the authors who evaluated the mentorship literature in the traditionally male-dominated field of engineering noted the importance of access to senior women faculty members and the value of a caring community in promoting personal and professional success.²⁵ Five women on the tenure track in the School of Education at one institution successfully incorporated friendship in their mentorship journey to achieve tenure. Although they varied in age by over 20 years and in the stage of their tenure clock, they too found their connectedness valuable in understanding their role as scholars.¹³ Friendship was also identified as a key way to "celebrate the whole person" among early and mid-career women faculty members across disciplines at a teaching state university, thereby facilitating mentorship in a Research and Writing Community of Practice.²⁶

How many faculty constitute the "right number" for participation in the ASPECT model is unclear. Four participants worked well for us in that it was large enough to allow diversity in academic rank, experience, and expertise, while being small enough that we could find common areas of scholarly interest to pursue. It was also small enough to allow us to spend time on each phone call catching up on interim life events. It is likely, however, that slightly larger or smaller groups can be equally effective, depending on the composition of team members.

WHAT MAKES THE ASPECT MODEL UNIQUE?

Our model draws upon important facets of the peer writing group, Mastermind Group, and peer mentoring group models, combining them into a single model not previously described in the literature. It is this combination that we believe makes the ASPECT model distinct. Typical peer *writing* group models include writing accountability groups, write on site groups, online writing groups, and collaborative writing groups. In writing accountability groups, members work on individual projects and receive project-specific advice from the group. In write on site groups, everyone comes at a designated place and time to work on their own writing. In online writing groups, the members commit to writing daily and briefly check in with others as a means of obtaining support and

maintaining accountability. In contrast to the ASPECT model, none of these models involve joint work on a scholarly project. Collaborative writing groups are a fourth peer writing group model in which the group works together on papers. However, unlike the ASPECT model, there is not a focus on career mentorship. Mastermind and peer *mentoring* groups, on the other hand, focus primarily on mentoring, rather than collaborative scholarly productivity. In the ASPECT model, we focus equally upon collaborative writing and career mentorship.

THE IMPACT OF GENDER AND ACADEMIC RANK

While we have intermittently had male colleagues participate in specific projects, having 4 women in our group and combining personal with professional mentoring has allowed us to naturally address some of the unique work-life integration issues faced by females in academic medicine. This is not to say that we would recommend forming or maintaining mentoring groups on the basis of sex. However, gender dynamics may impact the mentoring relationship in key ways. For example, a study on mentoring and the career satisfaction of male and female academic medical faculty reported that respondents found female mentors to be more likely to give advice on work-life balance, which was enhanced when the mentee was female.³ In another study of K awardees, female participants endorsed the need for women to have at least 1 female mentor who can speak to issues such as the competing demands of work and family, negotiation, and limit setting.¹⁰ A study of over 4500 full-time medical school faculty found that women reported a significantly lower sense of belonging and relationships within the workplace compared with male colleagues.²⁷ The ASPECT model helps to fulfill this lack of connectedness. Of note, male faculty members have also reported dissatisfaction with work-life balance and receiving inadequate guidance in this area.³ Therefore, it may be that regardless of the gender composition of a mentoring group, focusing on both scholarly productivity and the personal connection fills a dual purpose that remains unfilled for many faculty.

It is also worth noting that our group has always consisted of faculty of varying academic ranks, including at least 2 faculty members with an academic rank of Associate Professor or higher. With far fewer faculty at the rank of Associate Professor or Professor, creating a forum of mentorship for faculty at higher academic ranks can fill key mentoring gaps.²⁸ In our collaboration, the most senior members of the group often used the group's "outsider" perspective to work through personal and professional challenges. Serving as senior author on publications also helped the most senior member fulfill the mentorship and productivity requirements required for promotion to full Professor.

LESSONS LEARNED

We believe that our experience represents an important paradigm for network mentoring in academic medicine.

The ASPECT Model is not meant to replace other mentoring relationships; rather, it is another option, particularly for those interested in building research skills and enhancing scholarly productivity. Strategically attending special interest group sessions at professional conferences and getting involved in the work of regional and national professional organizations can be a great place to start cultivating mentoring relationships outside one's home institution. Many faculty overlook the importance of networking at regional and national meetings. This is particularly important given that building one's academic reputation is typically a promotion criterion. Capitalizing on shared common scholarly interests, engaging in regular, structured meetings of sufficient length to promote project-focused and personal discussion, and cultivating personal connections are the key tenants of our ASPECT model. With the above structure, we believe a supportive, productive, and richly meaningful mentorship experience can be achieved in academic medicine.

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