

**Mentoring Faculty for Teaching in Academic Medicine**

By

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## Abstract

Much has been researched and written about mentoring faculty generally in academic medicine, particularly related to research mentoring. Little is known from research about the mentoring practices for early career faculty in academic medicine that will prepare them to flourish in their teaching throughout their careers. My research addressed this gap in the mentoring literature by using a grounded theory approach to identify specific mentoring practices that contribute to and militate against early career faculty flourishing in teaching.

Using interviews with educational leadership and early career faculty, observations of mentoring and document review, I developed the S-iR-O grounded theory. The S-iR-O grounded theory includes the three spheres of practices: Situational (S), individual-Relational (iR), and Organizational (O). These spheres of practices are interactional and overlapping as not all mentoring practices are discrete to a single sphere. Within the S-iR-O grounded theory 18 mentoring practices were identified which contribute to and eight mentoring practices which militate against flourishing in teaching.

## Chapter 1: Mentoring Faculty for Teaching in Academic Medicine

A generic or *one size fits all content* approach to mentoring of early career faculty in academic medicine is expected to contribute to individual faculty flourishing in their teaching throughout their careers. For the most part mentoring research is focused on reporting mentoring programs or practices that are generalized lists of best practices and recommendations for making the most of mentoring relationships based on career development, psychosocial needs, roles that mentors play, types of mentors, and phases of mentoring relationships (Baldwin, 2008; Berk, Berg, Mortimer, Walton-Moss, & Yeo, 2005; Bland, Taylor, Shollen, Weber-Main, & Mulcahy, 2009; Borders et al., 2011; Chao, 1997; Chao, Walz, & Gardner, 1992). This literature does not explore if effective mentoring practices vary when mentoring relates to diverse activities such as teaching or the context of activities such as the clinical learning environment.

In academic medicine and related science fields, research has centered on mentorship for how to conduct research (Humphrey, 2010; Sandi & Chubinskaya, 2020; Sood, Qualls, Tigges, Wilson, & Helitzer, 2020) and research mentor training interventions (Fleming et al., 2013; Pfund et al., 2013; Pfund et al., 2014). Much of the existing research on mentoring practices comes from fields outside higher education and academic medicine, such as business management, organizational science, and the corporate world (Dobrow, Chandler, Murphy, & Kram, 2012; Eby, Butts, Durley, & Ragins, 2010; Higgins & Kram, 2001; Humbert & Rouse, 2016; Kram, 1983; Ragins, 2012). While this literature is useful for understanding mentoring writ large, it is not closely tethered to mentoring faculty in higher education and academic medicine. In many of these studies the nature of mentoring relationships, identities of the individuals and purposes for mentoring are conflated with supervisory roles or are not described.

To be transparent, some research explores interventions, programs or practices that contribute to success and satisfaction with teaching and crafting an education focused career from the perspective of clinician educators—faculty with mostly clinical and teaching responsibilities—in academic medicine (Gerrity et al., 1997; Levinson & Rubenstein, 2000; Pylman & Ward, 2020; Roberts, Schwartzstein, & Weinberger, 2014; van Lankveld, Schoonenboom, Croiset, Volman, & Beishuizen, 2017). Yet, challenges exist for clinician educators such as relatively slow career advancement (Castiglioni et al., 2013). There are limited guidelines and frameworks for trainees, or future faculty, to know how to craft such a teaching career (Graziano et al., 2019; Santhosh, Abdoler, & Babik, 2020). Added to the lack of developmental opportunities for teaching and ways to measure teaching excellence (Levinson & Rubenstein, 2000), leaders in academic medicine find it more difficult to mentor clinician educators (Chang et al., 2021). Effective mentoring practices are not prominent in this literature to support teaching and develop educators. When mentoring is recommended as a strategy there are rarely specific suggestions related to mentoring in teaching.

In broad strokes, mentoring is seen as a component of faculty or professional development models and activities for enhancing teaching from a faculty development perspective in academic medicine (O'Sullivan & Irby, 2011; Y. Steinert, 2010; Y. Steinert et al., 2016; Yvonne Steinert et al., 2006). In systematic reviews of the faculty development literature to improve teaching effectiveness in academic medicine from 1980 to 2012 (Y. Steinert et al., 2016; Yvonne Steinert et al., 2006), mentorship was identified as a component of some programs, but it was not well described. Y. Steinert et al. (2016) emphasized the need for research on mentoring that is helpful for faculty to enhance their teaching effectiveness, particularly in the workplace. Relatedly, O'Sullivan and Irby (2011) proposed a model for

academic medicine that recognizes the role of mentoring in faculty development research. Peer observation and feedback were the predominant features of a development program developed in Australia for health science faculty (O’Keefe, Lecouteur, Miller, & McGowan, 2009). This program used constructive feedback and recommendations for improving teaching “within the context of a collegial partnership” (O’Keefe et al., 2009, p. 1062), as an attraction for participants. While mentoring is not mentioned, there are clearly similarities with collegial partnerships. Participants noted that this program created “‘space’ to discuss teaching” (O’Keefe et al., 2009, p.1063).

Mentoring of early career faculty in academic medicine consumes time and energy without much understanding of which lever operates which pulley for career success (Beech et al., 2013; Sambunjak, Straus, & Marusic, 2009). Many in academic medicine have called for more robust evidence of the benefits of mentoring (Bonilha et al., 2019; Choi, Moon, Steinecke, & Prescott, 2018; Pololi & Evans, 2015). Despite a plethora of publications and programs for mentoring, a dearth of literature persists specifically addressing the mentoring of those who are pursuing careers as clinician educators (Chang et al., 2021). Guidance for mentors and mentees about mentoring practices that contribute to effective teaching and successful careers in academic medicine is greatly needed.

With little research on mentoring in the sphere of education and faculty teaching, little is known about whether early career faculty and their mentors are informed, mystified, or misled with respect to what mentoring can do to improve teaching. Consequently, it is unclear if current mentoring practices, interventions and programs are relevant to the context or content of early career faculty activities in relation to teaching in academic medicine. This lack of clarity exposes a critical gap in the research: the need to identify mentoring practices related to faculty teaching

in medical schools. The current state of research on mentoring for teaching begs the question of what practices contribute to or militate against preparing faculty for flourishing in their teaching throughout their careers. Failure to address this gap can contribute to inadequate, ineffective, or insufficient mentoring of faculty with respect to their teaching to enhance student learning in academic medicine.

### **The Potential Costs and Benefits of Mentoring**

In a study of 36 institutions, Zimmermann et al. (2020) reported the findings of the Association of American Medical Colleges (AAMC) StandPoint Faculty Engagement Survey which showed that 30 percent of faculty considered leaving their institution and that receiving formal mentoring was a proactive strategy for retention. Faculty turnover is estimated to cost an Academic Medical Center (AMC) more than 5% of their annual operating budget (Waldman, Kelly, Arora, & Smith, 2010). One study posited that the cost of recruitment, hiring and lost income for replacing faculty in different clinical departments amounted to between \$115,000 and \$590,000 (Schloss, Flanagan, Culler, & Wright, 2009). A study of medical schools in the United States found that 21% of faculty had seriously considered leaving academic medicine and 14% had considered leaving their current institution (Pololi, Krupat, Civian, Ash, & Brennan, 2012). At one institution, 34% of the 139 recent faculty hires left within their first three years and failure to provide adequate professional development was identified as one predictor of attrition (Bucklin, Valley, Welch, Tran, & Lowenstein, 2014). Another institutional study showed that the widespread intent to depart an institution was closely aligned with inadequate mentoring (Lowenstein, Fernandez, & Crane, 2007).

While institutional policies, programs and models often bring attention to the need for mentoring (Jackson et al., 2003; Kashiwagi, Varkey, & Cook, 2013; Pololi & Knight, 2005),

according to Pololi and Knight (2005) and Pololi and Evans (2015) there has been little research on what practices contribute to high quality mentoring and what practices undermine effective mentoring in medicine. Choi et al. (2018) advocated for “a stronger base of evidence validating the benefits of mentorship and identifying factors associated with successful programs” (p. 9). Beech et al. (2013) and Sambunjak, Straus, and Marušić (2006) reported in their reviews that although mentoring is believed important for academic success, understanding of the relationship of mentoring with a program, retention and outcomes for success are limited or not robust. Bonilha et al. (2019) maintained that “there are no studies with prospective outcome data on the effectiveness of an institutional-wide mentoring program at an academic health center” (p. 309).

Alongside the absence of much research on mentorship are concerns about preparation and support for teaching. As reported by Kubiak, Roman, Guidot, Trimm, and Kamen (2012), clinical preparation in medical schools and residency programs focuses on clinical skill development and not teaching or presentation skills. Srinivasan et al. (2011) argued that “most medical faculty receive little or no training to be effective teachers, even when they assume major educational leadership roles” (p. 1211). Along with limited preparation for teaching, faculty are not provided with mentorship for their teaching or prepared to mentor for teaching. Teachers in academic medicine experience a diminished reputation for educational activities compared to research and patient care (van Lankveld et al., 2017). Chang et al. (2021) claimed that “little has been written for leaders on strategies to advance academic clinician educators’ career success” (p. 1) and that there is an increased possibility clinical educators will leave compared to clinical researchers. In short, it is unclear whether faculty are getting the messages and the mentoring they need to strengthen their teaching and teacher identity to keep them in academic medicine. Considering the costs and disruption caused by faculty attrition and the

questions surrounding support for teaching, research is clearly needed that identifies what aspects of mentorship, as well as mentoring committees or group mentoring practices, contribute to developing faculty teaching and ensuring their success and retention as teachers in academic medicine.

### **Problem Statement**

My research addressed the gap in the mentoring literature with respect to nuanced understanding of faculty mentoring practices for teaching. The fields of mentoring and academic medicine have not identified mentoring practices for early career faculty that will prepare them to flourish in their teaching. Mentors are left with generalized and generic practices in their mentoring toolkits that may prove inadequate with respect to mentoring teachers or clinician educators to flourish. My research developed a framework and identified specific mentoring practices – that do and do not – contribute to early career faculty flourishing in teaching.

Early career faculty have much to pay attention to they need to attend to when beginning a career in academic medicine. Some faculty experience competing demands from establishing their clinical practice, initiating a research career, engaging with learners in an educational environment and upholding good citizenship with additional service activities. Anecdotally, from my professional experiences I have heard early career faculty who are interested in crafting a career around teaching tell me that they are uncertain about how or where they should start. The drive toward promotion for early career faculty complicates decisions about which activities and direction to pursue that will lead to academic productivity, career success and satisfaction. Mentoring is used as a mechanism to assist early career faculty. It is important to ensure this mentoring is addressing the nature and notion of faculty needs by looking at mentoring practices related to teaching activities throughout their careers.

## **Research Question**

My research question guiding this study was: What mentoring practices contribute to and what mentoring practices militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers?

The long-term goal of my research has been to improve mentoring practices and the success of early career faculty regarding teaching throughout their careers while concurrently addressing the call from numerous authors for adding a rigorous study to the mentoring research base. Once again, the objective of this research has been to identify promising mentoring practices to support teaching in academic medicine education. In this study I used grounded theory and gathered data with observations of mentoring that took place in early career faculty mentoring meetings and mentoring committee meetings; interviews with leadership, staff, early career faculty, their mentors and mentoring committee members; and my review of related documents.

Put simply, the findings of this study can enrich our understanding and knowledge base for faculty mentoring, mentoring committee functions and practices for early career faculty, mentors, or members of the mentoring committees in departments relative to teaching. Improving the mentoring for faculty teaching should have a downstream impact on faculty teaching that will markedly enhance the learning of students. Moreover, improving faculty mentoring could enhance the retention of faculty. I now turn to discussing key concepts of my study.

## **Defining Mentoring, Mentorship, Flourishing, Faculty, and Learners in Academic Medicine**

My definitions and descriptions for mentoring or mentorship, flourishing and faculty in academic medicine are provided below.

**Mentoring and Mentorship.** As the literature indicates, the term mentoring can mean many things to different people and situations (Zellers, Howard, & Barcic, 2008). For the purposes of this research the terms mentoring, and mentorship will be used interchangeably and defined as “a professional, working alliance in which individuals work together over time to support the personal and professional growth, development, and success of the relational partners through the provision of career and psychosocial support.” (Byars-Winston & Dahlberg, 2019, 2019, p. 2). To operationalize mentoring and mentorship it is vital to recognize these two functions of career support and psychosocial support (Byars-Winston & Dahlberg, 2019). Important to understanding these relationships is defining the aim and who the individuals are that are being mentored.

**Flourishing.** According to Merriam-Webster (2022), flourishing is healthy and vigorous growth or being very active and successful. As this applies to early career faculty in academic medicine and flourishing in their teaching throughout their careers, I envisage this as the kind of deep engagement that ultimately leads to thriving and not just surviving. From my perspective, flourishing is soaring related to teaching and not just keeping your head above water.

**Faculty in Academic Medicine.** Block, Sonnino, and Bellini (2015) emphasize the difficulty of defining who faculty are in academic medicine and insist that this definition must align with institutional activities such as education, research, and patient care. A framework of locally defined fundamental and varying components can be used to describe faculty in academic medicine (Block et al., 2015). Involvement in education and/or research activities are fundamental features with various other features defined by individual institutions (Block et al.,

2015). These varying features often reflect unique clinical roles and responsibilities in addition to fundamental features (Block et al., 2015). Not all faculty are clinically trained in academic medicine and many faculty teaching in medical school curricula come from disciplines within the basic sciences or could have been trained in education or psychology.

The distinction between the academic medicine and medical practice settings is important as it relates to the type of activities faculty conduct and organizational or institutional expectations. Academic medicine is a unique sliver of academic life at a university where faculty may teach and engage in research, and their service may be in the clinical realm. Academic medicine faculty may maintain clinical practices and activities in specialty or subspecialty medical areas. Academic medicine is the practice of medicine within an academic environment or in hospitals and clinics attached to or part of academic institutions and academic health care systems. This distinction is important when considering the type of mentoring faculty and physicians may need. My research focused on academic medicine faculty and more specifically those who are teaching throughout their careers. My research included faculty without clinical training and responsibilities so long as they were teaching in some capacity in academic medicine. Early career faculty appointments or tracks tend to determine which activities faculty focus on.

Institutional and medical school policies determine the different faculty tracks in academic medicine, tracks which have an impact on the type and context of academic activities faculty pursue. For example, at a midwestern research institution, early career faculty in the medical school can pursue a traditional tenure or tenured track with a six year *up or out promotion clock*, a clinical health sciences (CHS) track with an eight year *up or out promotion clock*, or a clinical teacher (CT) track without a clock but strong encouragement for promotion.

Faculty on the tenure track with clinical training focus their academic productivity on research and clinical care depending on their specialty and subspecialty. They are less likely to be teaching in the classroom, particularly semester long courses though they may teach a few classes in a course. They may also teach in clinical settings. Tenure track faculty with basic science training and not clinical training are most likely to be teaching in the medical school curriculum classroom, especially classes for students in the first two years of medical school. Faculty on the CHS track may teach in the medical school curriculum and in clinical settings such as at the bedside. CT track faculty are most likely to be teaching in clinical settings. It is possible that any of the faculty on these tracks may self-identify as clinician educators. They are usually known within their departments for their teaching.

Four prototype clinician educator pathways have been identified in academic medicine as master clinician, clinician leader, education leader and education researcher (Chang et al., 2021). These pathways were labeled to indicate the clinical or education career focus of the clinician educator faculty such as “BIG E, little c” (Chang et al., 2021, 2021, p. 3) when the focus is on teaching or educational activities and less on clinical activities. It is these BIG E faculty, centered primarily on educational activities like teaching, curriculum development, education research, and educational leadership, with some research and/or clinical activities, who are the focal point of my research.

**Early Career Faculty.** Although my focus has been on the practice of mentoring, I acknowledge that localized policies and practices at the department, school, and institutional level require specific mentoring activities for faculty depending upon the academic track they are pursuing and their position as assistant, associate, or full professor. Accordingly, mentoring practices are not divorced from policy. It is the operationalizing of these policies into practice for

early career faculty that tend to be the most common mentoring occurring in academic medicine. It is likely then that early career faculty get more mentoring in comparison to other ranks. My understanding of *early career* refers to approximately the first ten years as a faculty member. I am hesitant to use promotion from assistant to associate professor as a demarcation line with respect to who I included in the category of early career because there is much variation in the length of time faculty take to promote depending on the track. This is also governed by additional policy allowing for extensions in the time allowed due to life events and circumstances. Suffice it to say, I loosely defined early career faculty as those in their first ten to fifteen years of the profession and who are mostly assistant professors with only a few being associate professors. Early in the study I did not know how freely faculty early in their career would be with respect to their experiences and what they needed in terms of mentoring for teaching. Another consideration for my being flexible in defining early career is that some faculty find an interest and passion for teaching later than their first five years.

**Academic Medicine Learners.** For context, in academic medicine and as reflected in the literature are the different levels of trainees or learners who faculty teach. Generally, the levels of trainees and education types in academic medicine are: a medical student who is in graduate education from an institutional perspective but which is called undergraduate medical education (UME) in academic medicine; a resident who has completed their doctorate, or UME, signified with an MD after their name and who is progressing through clinically focused graduate medical education (GME) toward licensing as an independently practicing physician; and a fellow who is an independently practicing physician continuing clinical training in a specialty or subspecialty (also considered part of GME). Continuing medical education (CME) is primarily teaching of independently practicing physician faculty to maintain certification and licensure, which may be

considered faculty development with recognized credit for learning. To elaborate, faculty in academic medicine, particularly physician faculty also known as attendings, could potentially teach all these learners in clinical and classroom settings.

I turn now to positioning myself in relation to my research question and outline the reasons for my interest in this research. Then I will pivot to describe how I approached my research.

### **Situating the Self**

In my professional life I work in a medical school at a research intensive, large public university. The Office for Faculty Affairs and Development, where I work, is charged with responsibility for faculty promotions and reports directly to the Dean of the School of Medicine and Public Health. In my role as Director for Faculty Development Programming for this office, I often work closely with faculty to support them in a multitude of ways across the school missions. I am very familiar with the different faculty tracks, academic activities, policies, and programs that support faculty. I am very involved with providing information, professional development opportunities and resources for faculty across a spectrum of needs. I have frequent contact with individual faculty, often collaborating on various projects and ventures. This proximity, collaboration and relationship building with faculty, has made me aware of their individual uniqueness as well as similarities with respect to their experiences and challenges they have faced. It is this experience I believe that affords me the professional sensitivity described by Strauss and Corbin (1990).

In a similar way, my personal experiences of, at one time, being an instructional faculty member at a community college in Australia, as well as in K-12 education, allow me some insight into the experience of my faculty colleagues. I have an insider view of the faculty identity

and experience even if not identical. As Strauss and Corbin (1990) identified, this personal experience is another source of theoretical sensitivity.

In many ways I am an outsider in academic medicine, as I am not a physician or faculty member, yet I believe my professional position and previous faculty and teacher identity afford me an insider view (Corbin Dwyer & Buckle, 2009). I used this insider-outsider perspective as described by Corbin Dwyer and Buckle (2009) as a guiding frame for exploring faculty mentoring for teaching. I discuss this insider-outsider approach with my other underlying assumptions and social constructivism and positioned subject conceptual frameworks in my research design chapter.

My interest in studying this topic relates to my appreciation and love for the teaching I do and have done in my own life. I hold teachers in academic medicine in high regard and sometimes feel we can do more to help people find this path. As Pylman and Ward (2020) state, I want to “encourage clinician educators to embrace the teaching role and seek educator development opportunities” (p. 233). I view mentoring as a career development opportunity and think too often the practices are generic or not well described. Coaching and mentoring could be transformative for engaging someone on a path to their own fulfilment and success as well as their learners. I do not feel my professional and personal experiences are inappropriate or made me too emotionally involved as I conducted my study (Ary, Jacobs, Sorensen, & Razavieh, 2010). I acknowledge that bias is always a threat and submit that there may exist bias that led me to want to study mentoring for teaching in the first place. I was guided by Strauss and Corbin (1990) for maintaining balance such as stepping back to question myself, being skeptical of my perspective and staying true to my research procedure. The differentiated status of teaching compared to other university missions and faculty activities identified by van Lankveld et al.

(2017) is disheartening. I want to shine a light on the worthwhile pursuit of teaching and mentoring for teaching in academic medicine.

### **Blended Approach to Research on Mentoring as Faculty Development**

I used a blended approach to my research that is neither reductionist nor holistic (Bredo, 2009; O'Sullivan & Irby, 2011). The cyclical manner of gathering different perspectives advocated by Bredo (2009) has meshed well with my basic qualitative study, particularly the iterative nature of grounded theory. This blended approach enabled me to see the entire enterprise of mentoring early career faculty members holistically and then zoom in or drill down to the individuals, actions, and content specific practices in isolation. Reducing the mentoring experience to the individual parts, richly wedded to content and context helped me shine a light on the mentoring actions, words and approaches for flourishing in teaching. Once deconstructed, I began to identify holistic mentoring practices related to teaching and education careers for early career faculty. Similarly, as Bredo (2009) maintained, “method and meaning are interdependent, and the statements in a theory relate relevant facts as a whole” (p. 443), I believe I have shown in this study the relevant parts of a whole.

In my blended approach I explored and developed generalizations by looking for patterns within a single case or between cases (Bredo, 2009). I looked for generalizations as prior mentoring research has done to unearth best practices while looking deeper into these best practices for the parts related to teaching. I then analyzed the mentoring situation at one time into parts and then synthesized for common meaning the next time (Bredo, 2009). Bredo (2009) utilizes the metaphor of a bridge to explain this cyclic type of inquiry where a bridge design is constructed that spans the gap like premises lead to conclusions. Then the banks that the bridge needs to connect to are modified to fit the bridge. In this way a bridge is not designed without

understanding of the gap, desired function, and the banks. In short, my research approach was neither reductionist nor holistic but blended to enable both orientations to contribute as “a feel for the whole combined with technical accuracy of parts” (Bredo, 2009, p. 446).

In my next chapter I examine the existing research and literature on faculty mentoring. My literature review explored the existing base of knowledge for policies, programs and practices that contribute to or undermine effective mentoring broadly and specifically for teaching in academic medicine.

## **Chapter 2: Mentoring Faculty for Teaching in Academic Medicine: Scoping the Literature**

The literature reviewed in this chapter percolates up from the fields of business management, organizational science, career psychology, K-12 education, higher education, and academic medicine. I used a wide net to search for literature to comprehend the multiple facets of mentoring and how it is operationalized. I begin this chapter with a description of my literature review methods using the scoping review--common in the health sciences--as a conceptual framework. I present my detailed findings in three progressively narrowing literature strands: mentoring inside and outside the academic setting; policies, programs, and practices that contribute to or undermine effective mentoring in academic medicine; and programs and practices that contribute to or undermine effective mentoring for teaching and educational activities in academic medicine. My findings show that although much has been written and researched related to mentoring generally, for research mentoring in academic medicine, there has been relatively little research on mentoring practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers.

I conducted a modified scoping review of the literature that addressed these three research questions: What is mentoring inside and outside the academic setting? What policies, programs, and practices contribute to or undermine effective mentoring in academic medicine? What programs and practices contribute to or undermine effective mentoring for teaching and educational activities in academic medicine?

### **Conceptual Framework**

I used the scoping study or review approach from academic medicine and the health sciences as my conceptual framework to guide my methodology. Arksey and O'Malley (2005),

who were among the first to describe scoping studies, suggested four reasons for conducting a scoping study. These include: “to examine the extent, range and nature of research activity. . . to summarize and disseminate research findings. . . [and] to identify research gaps in existing literature” (p. 5) that are particularly relevant justifications and pertinent aims for my review. In broad strokes, Arksey and O'Malley (2005) introduced this scoping approach as mapping “the key concepts underpinning a research area and the main sources and types of evidence available” (p. 3). Anderson, Allen, Peckham, and Goodwin (2008) further explored this mapping and distinguished between three types of mapping as literature mapping, conceptual mapping and policy mapping. Levac, Colquhoun, and O'Brien (2010) refined this strategy of “mapping” (p. 1) the literature, proposing that it is appropriate when there is a “paucity of randomized controlled trials” (p. 1) which has been the case in this line of inquiry for mentorship and mentoring for teaching. Accordingly, I selected the six-stage framework of Arksey and O'Malley (2005) as the foundation for my theoretical underpinning as well as the conceptual framework for my scoping review of the extant literature as described in my method section. To be transparent, I did not conduct a full-scale scoping study due to time constraints, absence of a research team, and restricted access to stakeholders for consultation (Levac et al., 2010).

### **Literature Review Method**

To scope the literature for mentoring for teaching, I followed these five steps outlined by Arksey and O'Malley (2005): (a) identify the research question, (b) identify relevant studies, (c) select studies, (d) chart the data, and (e) collate, summarize, and report results. According to Levac et al. (2010) the third stage of selecting studies should be iterative.

As an initial step in this review, I defined the terms mentor, mentoring, and mentorship. I reflected on how these terms differed conceptually from coaches and coaching; advisors and

advising; sponsors and sponsoring; monitors, advocates, role models, guides, tutors, and counselors. I considered how the literature defined and used these terms. Anderson et al. (2008) described this as concept mapping where the review includes exploration of the terminology of a topic.

Initially, my methodology included conducting literature searches in Google Scholar using these keywords: *faculty mentoring*; *faculty mentoring best practices*; *academic faculty mentoring*; *academic faculty mentoring programs*; and *academic faculty mentoring best practices*; and *faculty mentoring policies*. Some Google Scholar searches such as *academic mentoring programs* yielded 428,000 results, which displayed the results in what Google Scholar calls the “most relevant” order. In these cases, with such a high volume of articles I looked at several pages of results to find potential articles for inclusion.

As I am particularly interested in the distinctive needs of faculty related to medicine, I conducted PubMed searches using similar keywords but with additional or alternate keywords such as *physician faculty mentoring* and *physician faculty mentoring best practices*. I collaborated with a Health Sciences research librarian to develop and refine my search terms to yield a productive and inclusive search. For example, to explore literature in academic medicine we designed a basic search in PubMed to identify many of the articles I would be interested in: ((“Mentors”[Mesh] OR Mentor\*[tw]) AND “Faculty”[Majr] NOT “Students”[Mesh]) OR (mentor\*[ti] AND faculty[ti] NOT student\* NOT MEDLINE). This search term included any article that uses the terms *mentor* (including the \* as a wildcard to capture mentor, mentoring, mentorship, etc.) and *faculty*, but blocked any articles that mentioned *students*. This search (with an English language filter) retrieved 1240 articles. See:

<https://www.ncbi.nlm.nih.gov/sites/myncbi/1fmNTRBsQw/collections/59444073/public/>. To

drill down to explore mentoring specifically for teaching activities I used these keywords:  
*mentoring teachers in academic medicine* for searches.

I found the advice of Arksey and O'Malley (2005) for determining inclusion and exclusion criteria to be helpful, as well as criteria examples of criteria used by Cantillon, Dornan, and De Grave (2019) which I adapted for my review. My inclusion and exclusion criteria were as follows:

#### **Inclusion criteria**

- Publication types: Research, academic reviews, program, practice, or policy descriptions (with or without evaluation), evidence-based mentoring 'how to' books that explore the understanding of mentoring of faculty in academic medicine and higher education
- Population: Academic medicine or higher education faculty, including physicians and relevant health sciences faculty where relevant
- Intervention: Any type of mentoring policy, program, or practice and those that specifically related to teaching and educational activities
- Context: Any academic medicine or higher education setting
- Publication years: 1980 – present
- Sources: Published research articles including secondary research sources and doctoral dissertations when appropriate

#### **Exclusion criteria**

- Publication types: Commentaries and other types of nonacademic publications unless they provided a unique perspective
- Populations: students, youth, post docs, graduate students, residents, and fellows unless combined with faculty in a publication

- Studies published in languages other than English
- Context: Settings outside of academic medicine or higher education unless they provided unique results, application, or methods

I used these inclusion/exclusion criteria to select the most relevant literature. In so doing, I excluded articles and books that primarily focused on youth, non-academic workplaces with some exceptions, post-doctoral fellows, graduate or undergraduate students, residents, and fellows. I screened for literature published since 1980 to find contemporary approaches and evaluated case by case with older articles. This may mean that there were informative articles and practices that are not included in this review. Some of the articles I found cited other authors that generated relevant literature to include. Whittemore and Knafl (2005) encouraged the use of at least two strategies, as I have described, to ensure a comprehensive search.

Importantly, I did not explicitly assess quality or exclude articles that some researchers may deem of inferior quality from a methodological standpoint. My main reasoning was that slicing and dicing the body of literature based on quality, peer review or only experimental designs omits a significant weight of literature due to the predominance of articles that are mentoring program descriptions with and without evaluations of varying depths, outcomes, and methods. My justification for including literature beyond peer reviewed publications is based on my need-to-know what advice, information and suggestions are available to mentors, mentees, and organizations for navigating these relationships, programs, and other initiatives. Even an article or book that only described a program or practice was of value which aligned with the inclusion strategy in historical research (Whittemore & Knafl, 2005). Whittemore and Knafl (2005) described an integrative review style that incorporates non-experimental and experimental research in the literature for varying purposes. The integrative review is considered to have the

“potential to result in a comprehensive portrayal of complex concepts, theories, or health care problems” (Whittemore & Knafl, 2005, p. 548). It is this comprehensive portrayal of the mentoring literature that guided my literature review.

I modified and used a table summary template, based on the “data charting form” (p. 14) by Arksey and O'Malley (2005), for each article reviewed (see Appendix A). This enabled me to standardize my approach to each article and track the evidence as I sifted through. My table summaries helped me sort the literature into different strands; recognize common themes or types of literature; count publications or theme types or contexts; and eventually identify possible gaps to inform my methodology.

I thematically sorted the literature into three strands that telescoped from mentoring writ large to mentoring in academic medicine and teaching more specifically. My literature strands include mentoring inside and outside the academic setting; policies, programs, and practices that contribute to or undermine effective mentoring in academic medicine; and programs and practices that contribute to or undermine effective mentoring specifically for teaching and educational activities in academic medicine. I included policies, programs, and practices where possible and common themes across the literature I reviewed to organize within these sections. These subcategories are not necessarily discrete, and some overlap existed. Initially, in my findings section I outline a broad summary, provide introductory comments regarding the overall literature results, identify the high-level gaps or weaknesses within the knowledge base, and then delve further into unpacking mentoring, the policies, programs, and practices for mentoring in academic medicine related to teaching and educational activities in these literature strands.

## **Findings**

Mentors and mentoring are not new concepts. Many authors cited Greek mythology as the origin of the word, explaining how Odysseus asked his friend “Mentor” to guide and teach his son in his absence during the Trojan War (Berk et al., 2005; Bland et al., 2009; Carey & Weissman, 2010; Chao, 1997; Choi et al., 2018; Coates, 2012; Cross et al., 2019; Illes, Glover, Wexler, Leung, & Glazer, 2000; Kosoko-Lasaki, Sonnino, & Voytko, 2006; Nick et al., 2012; Ramani, Gruppen, & Kachur, 2006; Sands, Parson, & Duane, 1991; Zellers et al., 2008). In the literature, mentors and mentoring relationships are valued and viewed as instrumental for helping individuals reach successful career outcomes and potential, as well as psychosocial support, growth and diverse other purposes (Baldwin, 2008; Berk et al., 2005; Bland et al., 2009; Borders et al., 2011; Boyle & Boice, 1998; Bucklin et al., 2014; Chao et al., 1992; Cho, Ramanan, & Feldman, 2011; Cross et al., 2019; Etzkorn & Braddock, 2020; Feldman, Arian, Marshall, Lovett, & O'Sullivan, 2010; Humberd & Rouse, 2016; Kram, 1983; Zachary, 2012; Zellers et al., 2008). Additionally, as mentoring takes place in human interactions and relationships, it is vital to recognize who is involved or mentoring whom. In the academic setting this is potentially faculty, staff, and students. This literature review is focused on faculty mentoring faculty unless a study included faculty and another population, or the study identified key information regarding mentoring.

In total, I reviewed over 150 publications. This literature comes from three main spheres, fields or areas including: management, business, and organizational science; higher education and social sciences; and academic medicine. The bulk of this literature describes mentoring programs or practices at single institutions with some evaluation or data gathering process to show outcomes or benefits. Of the articles reviewed only one was specifically policy related, at least 38 were program focused, and approximately 70 related to practices. In this literature

landscape, there was only one randomized controlled trial of a mentoring intervention (Lewis et al., 2016). Often data used in program evaluations was self-reported and retrospective. Fifty-two articles reported what would traditionally be considered quantitative, qualitative, or mixed method research, excluding the programs with evaluation data and review articles. Twenty-four of the articles reviewed are quantitative studies. Surveys were the major research method. Twenty-eight articles reviewed are qualitative studies. Some articles combined quantitative and qualitative methods but fall short of mixed methods studies due to a lack of conceptual connections between the methods. Thirty-four of the articles were systematic, scoping or some other type of review of the existing literature. Eight publications were evidence-based “how to” books or commentary. Importantly, very few studies, less than ten, explicitly named or addressed mentoring related to teaching and education activities. Most studies explored mentoring in a general sense instead of in a particular mission or content area of faculty development.

I turn now to the literature in three literature strands. The first literature strand offers the broadest lens for reviewing mentorship in the literature and it is the place where many definitions and concepts for mentoring are delineated and addressed in the entire review. This strand is particularly important for exploring the terms being used in the literature; roles mentors play; types or models of mentoring; phases of mentoring; mentor/mentee selection or assignment; and similar concepts. To avoid repetition across the different strands the first strand considers mentoring more holistically and contextualizes it within the academic setting, including academic medicine and at times outside the academic setting.

### **Mentoring Inside and Outside the Academic Setting**

The simplest way to explain mentoring is to define it as “a supportive relationship designed to guide the successful integration of new members into an organization” (Columbia,

2016, p. 7) so they can add value. Sands et al. (1991) described a mentor as “a person who looks after, advises, protects, and takes a special interest in another’s development” (p. 175) and examined how research studies defined the term. Schrodt, Cawyer, and Sanders (2003) described mentoring as one way for improving work life quality in organizations and that “the benefits of mentoring are reciprocal” (p. 17) for the institution and individuals. Bland et al. (2009) defined professional mentoring in terms of three essential characteristics: a relationship with a purpose; “a collaborative learning relationship” (p. 12); and “a relationship that develops over time and passes through specific phases” (p. 12). These definitions tend toward identifying traditional mentoring in traditional mentoring relationships with a senior mentor and a more junior mentee as defined in more detail below. Kolman, Roegman, and Goodwin (2017), drawing on the K-12 teacher preparation literature, simply stated that “mentoring is a relational process” (p. 95) – a critical insight from my perspective.

Often the terms mentor, coach, sponsor, role model, guide, tutor, and counselor are used interchangeably. Zellers et al. (2008) separated sponsor, coach, role model and counselor into roles associated with mentoring that have different functions. In this way Zellers et al. (2008) differentiated between a sponsor as someone who “guides, protects, opens doors, and makes introductions” (p. 556) with a coach who “teaches, challenges, and provides feedback” (p. 556). Columbia (2016) clarified the difference between sponsorship and mentorship stating that mentors could also be sponsors but that roles function differently with mentors providing support on an ongoing basis versus sponsors advocating or providing “specific strategic opportunities . . . at a particular time” (p. 8). Zachary (2012) declared that a “mentor is a facilitative partner in an evolving learning relationship focused on meeting mentee learning goals and objectives” (p. 3) situated within a learner centered paradigm from adult learning theory. Coaching as described by

Zachary (2012) is a “kindred spirit” (p. 102) of mentoring, recognizing that the terms are used interchangeably even though they are not quite the same. Higgins and Kram (2001) introduced the term “developers” (p. 269) from a developmental network perspective as similar to mentors. It is possible to conclude, as Zellers et al. (2008) do, that the definition of mentor has not reached consensus and the concept means diverse things to different people and situations. Berk et al. (2005) agreed the definitions are diverse and there is “no consensus on an operational definition” (p. 66). Sands et al. (1991) provided a reminder that due to the differences in how mentor and mentoring are defined, caution should be used and “the results of one study cannot be compared with results of others” (p. 176).

Multiple authors have divided the roles or dimensions of mentoring into two main domains: career or technical and psychosocial or personal (Bland et al., 2009; Borders et al., 2011; Chao, 1997; Chao et al., 1992; Columbia, 2016; Higgins & Kram, 2001; Kram, 1983; Kram & Isabella, 1985; Zachary, 2012; Zellers et al., 2008). The most common delineation of these domains for faculty has been provided by Columbia (2016), who offered academically salient roles for the technical domain such as “advisor for development of academic scholarship . . . facilitator of professional networking within and outside the institution . . . [and] advisor for the development of teaching skills” (p. 7). Borders et al. (2011) introduced the mentor role of protector, for example “helping the mentee prioritize opportunities and giving permission to say no” (p. 172). In the psychosocial domain the roles suggested are: “promoter of scholarly values and professional integrity . . . advocate . . . intellectual challenger” (Columbia, 2016, p.8) and helper for “cultural, environmental and personal adjustments . . . acceptance and confirmation” (Borders et al., 2011, p. 172).

The following definition of mentoring as “a professional, working alliance in which individuals work together over time to support the personal and professional growth, development, and success of the relational partners through the provision of career and psychosocial support” (Byars-Winston & Dahlberg, 2019, p. 2) seems to enable an all-encompassing view of these relationships while recognizing the different roles or dimensions. This definition moves beyond describing traditional mentoring relationships by not stipulating who the individuals are as mentee/s or mentor/s. For the purposes of this literature review the definition is quite broad, as initially stated.

A discussion of mentoring is not complete without reflecting on the different types of mentors and mentoring models or relationships. The traditional type of mentoring with regularly scheduled, one-to-one meetings to build a relationship over time with a mentor who is a more senior person or faculty member is widely cited in the literature (Bland et al., 2009; Borders et al., 2011; Bruner, Dunbar, Higgins, & Martyn, 2016; Chao et al., 1992; Columbia, 2016; Eby et al., 2010; Higgins & Kram, 2001; Humberd & Rouse, 2016; Mitchell, Eby, & Ragins, 2015; Nick et al., 2012; Ragins, 2012; Ragins & Verbos, 2007; Sands et al., 1991; Zellers et al., 2008). Zellers et al. (2008) expressed concern for this traditional model that relies on hierarchical power relationships as not everyone has the same access to the power derived from social connections in organizations. Other types or descriptions of mentoring included peer or near peer (Angelique, Kyle, & Taylor, 2002; Blanco & Qualters, 2020; Bland et al., 2009; Columbia, 2016; Higgins & Kram, 2001; Yun, Baldi, & Sorcinelli, 2016); formal versus informal (Borders et al., 2011; Chao et al., 1992; Columbia, 2016; Eby et al., 2010; Fountain & Newcomer, 2016; Ragins, 2012; Ragins & Verbos, 2007); group versus individual (Bland et al., 2009; Columbia, 2016; Higgins & Kram, 2001); assigned versus self-selected or organic (Borders et al., 2011; Zellers et al.,

2008); and e-mentoring (Bierema & Merriam, 2002; Chong et al., 2020; Schichtel, 2010).

Fountain and Newcomer (2016) reported that “informal mentoring is prevalent, as are formal mentoring programs” (p. 499), at least in public affairs programs at universities in the United States. In the literature reviewed the most common names used for the individual who is mentored is mentee (Beech et al., 2013; Berk et al., 2005; Blanco & Qualters, 2020; Bland et al., 2009; Bonilha et al., 2019; Borders et al., 2011; Bruner et al., 2016; Buch, Huet, Rorrer, & Roberson, 2011; Buddeberg-Fischer & Herta, 2006; Carey & Weissman, 2010; Chen, Sandborg, Hudgins, Sanford, & Bachrach, 2016; Choi et al., 2018; Chopra, Arora, & Saint, 2018; Columbia, 2016; Das, 2020; DeCastro, Sambuco, Ubel, Stewart, & Jagsi, 2013; Feldman et al., 2010; Geraci & Thigpen, 2017; Jackson et al., 2003; Law et al., 2014; Straus, Chatur, & Taylor, 2009; Zellers et al., 2008) or protégé (Chao, 1997; Chao et al., 1992; Eby et al., 2010; Humberd & Rouse, 2016; Kram & Isabella, 1985; Mitchell et al., 2015; Nick et al., 2012; Ragins, 2012; Ragins & Verbos, 2007; Sands et al., 1991; Turban & Dougherty, 1994; Zellers et al., 2008).

The phases of effective mentoring were first identified by Kram (1983) in a qualitative study in the corporate management world are often referenced in the literature (Bland et al., 2009; Bouquillon, Sosik, & Lee, 2005; Chao, 1997; Etzkorn & Braddock, 2020; Higgins & Kram, 2001; Humberd & Rouse, 2016; Ragins, 2012; Zachary, 2012). Kram (1983) outlined a conceptual model of linear phases with estimated timing which includes the Initiation (six months to one year), Cultivation (two to five years), Separation (six months to two years) and Redefinition (ongoing indefinitely as peer or friend relationship) phases. This study was based on interviews with 16 senior managers in 18 mentoring relationships with 15 junior managers. These mentoring relationships were described as developmental but there is no explanation for how the dyads are formed, whether organically or by company programs or initiatives.

Therefore, it is difficult to assess if these are formal or informal relationships and if the phases are relevant to these specific types of mentoring experiences. Importantly, 11 of the 18 relationships were direct reporting or supervisory relationships and another 4 were indirect reporting relationships. It is possible that this study only reported the phases of hierarchical supervisory relationships instead of what many authors have taken at face value to be the equivalent of any mentoring relationship. Supervisory relationships have an embedded hierarchy, stronger than mentorship, so I question if these phases have forced development and compliance. There is a distinct difference between supervisor-supervisee and mentoring relationships (Humberd & Rouse, 2016; Sambunjak et al., 2009). Indicative is a quote from a female mentee participant in the study not having had a mentor she really wanted to emulate. In her words, her male mentor “does a lot of things that just aren’t right for me” (Kram, 1983, p. 617) and highlights the gender difference. Did this study explore mentoring phases versus supervisory phases or a mixture of both? Additionally, the senior mentors were invited for an interview after being identified by the junior managers, introducing potential selection bias. Only senior managers at the utility organization were invited for an interview so the mentoring phases could well be a unique phenomenon of this organization and culture. Nevertheless, this study is frequently cited as a model for mentoring relationship development phases without regard to methodology, formal or informal mentoring type, recognition of the context or methodological criticism.

In the first follow-up empirical study of Kram (1983), Chao (1997) confirmed these phases in a longitudinal survey of engineering alumni and then compared mentored to non-mentored individuals. There were significant differences between the two groups on all variables, including career outcomes, job satisfaction, organizational socialization and income

“regardless of whether the protégés were in current or former mentorships” (Chao, 1997, p. 24), that suggested long-term mentoring effects. Perhaps an important limitation not acknowledged in the Chao (1997) study was whether these phases apply evenly for mentoring relationships across the career trajectory at different stages such as early or mid-career. Humberd and Rouse (2016) explored “how personal identification evolves over the phases of a mentoring relationship and can impact the quality of the relationship over time” (p. 436). Humberd and Rouse (2016) recognized that a supervisory relationship may not be the same as a mentoring relationship and developed a model from the literature. Unfortunately, what is not clear in this article is the population of reference or who this model would apply to across the phases. In a quantitative field study from education and industry, Bouquillon et al. (2005) “examined the effect of mentoring phases on protégés’ perception of trust and identification with their mentors and mentoring functions” (p. 239). Somewhat higher levels of psychosocial support were observed for protégés in the redefinition phase and not surprisingly less career development in the separation phase (Bouquillon et al., 2005). Trust and identification did not significantly appear different across the phases although lower levels of identification with mentors were observed in protégés from education than industry (Bouquillon et al., 2005).

Bland et al. (2009) based their description of the phases in academic settings predominantly on the scholarship of Zachary (2012). Mentoring begins with the Preparing phase, similar to Kram (1983) where there is mutual learning and discovery about each other (Zachary, 2012). Supposedly, in this phase a decision can be reached about continuing with the relationship or not (Bland et al., 2009). It seems unlikely this is the only phase that the suitability or success of the relationship is questioned and more likely it is an intermittent or repeated process across the relationship. In the Negotiating phase the relationship develops, establishing specific goals

(Bland et al., 2009). The way forward for working together such as scheduling frequency, communication, and confidentiality in this phase lays the foundation for future development, trust and accomplishments (Bland et al., 2009). The Enabling phase is where mentee growth occurs with strategies like “collaborations, sponsorship, training, support, challenge and, more” (Bland et al., 2009, p. 66). This is the most prolific phase for contact and work to accomplish the career plan. The Closing or last phase is where either the relationship ends or new goals are negotiated for new development of the relationship (Bland et al., 2009).

Descriptions of mentoring phases in books and articles generally refer to traditional mentoring relationship dyads even when not explicitly stated. The phases are often described as if they are linear when in reality, they are more likely iterative and of varying lengths of time. Zachary (2012) viewed the phases as predictable and is one of the few authors who explicitly noted they are not linear but cyclic and movement is driven by behaviors.

Identity similarity and salience in mentoring relationships is also addressed in the literature. Individual social identity is an important mitigating factor for mentoring and mentoring relationships and must be considered from multiple mentor/mentee dimensions. Ragins (2012) noted that “demographic dis-similarity creates a challenge for many mentoring relationships as individuals may not be aware of ‘deep level’ types of diversity (e.g., personality, values, interests) that can be the basis for developing a close mentoring relationship” (p. 525). Zellers et al. (2008) clarified challenges in mentoring as “mentors are more inclined to select or make themselves available to those with whom they identify. . . . faculty members are naturally attracted to junior colleagues who conjure images of themselves” (p. 558-9). This combination of homophily and the idea of academic cloning would be less worrisome if not for the fact that for mentoring in the academe, “women and minorities are in short supply” (Zellers et al., 2008, p.

559). Kosoko-Lasaki et al. (2006) echoed the same concerns. Sambunjak et al. (2006) found that women have a harder time finding mentors than their male colleagues, indicating a need that should be addressed by mentoring programs. Mentoring is viewed as more useful by women than men when planning an academic career (Fountain & Newcomer, 2016). Columbia (2016) described differences in the experience of women and underrepresented minorities that can have a negative impact on success, such as: “disproportionate service burden; feelings of isolation; lack of mentorship” (p. 13). These differences indicated varying needs in mentoring relationships for women and underrepresented minorities (URM). Kosoko-Lasaki et al. (2006) and Lewis et al. (2016) defined mentoring programs as aimed at negotiating and enhancing accommodation for these identity characteristics. The results of these studies were inconclusive and clearly need further study. The next literature strand will look at programs in more depth.

The organizational and vocational sciences have improved our understanding of nuanced identity characteristics in mentoring. For example, Mitchell et al. (2015) examined “antecedents and outcomes of perceived similarity in mentoring relationships” (p. 1) in non-faculty university employees. The findings in this study indicated that protégés were more likely to consider themselves like a mentor if attachment security levels were similar, higher, or lower. Also, protégés reported more commitment to their profession and organization when they saw themselves as similar to their mentor, which was mediated by mentor role modeling functions (Mitchell et al., 2015). An extension of this work on identity included personal identification of mentors with mentees and vice versa across the phases of mentoring (Humberd & Rouse, 2016). Humberd and Rouse (2016) offered a model “that demonstrates how shifts in identification relate to the quality of the relationship that develops over time” (p. 435).

Some authors emphasized the mutual benefit of mentoring for the mentor and the mentee but have rarely evaluated or clarified the beneficial outcomes based on data from the mentor perspective. Coates (2012) maintained that “the advantages of being a mentor are underreported in the medical literature” (p. 92). Yun et al. (2016) specifically called their program “Mutual Mentoring” (p. 442) but they did not define what is meant by mutual. They did not report asking any detailed questions regarding mutual benefits in the evaluation beyond a question with a vague response option to agree or disagree that they are “having current mentoring relationships in which each participant benefited mutually” (Yun et al., 2016, p. 449) – which yielded more positive responses from program participants than non-participants. Blanco and Qualters (2020) modeled their program on the Yun et al. (2016) Mutual Mentoring program and similarly did not define the mutual benefit. The focus of these programs is based on cooperative networks of peers and near peers for mentoring, yet it is unclear how equal the contributions and benefits are for participants. These programs suggested that all participants increased productivity or reaped benefit from joint scholarly products as a result of their mentoring relationships even though no data is presented to substantiate the implications pre and post program.

Bland et al. (2009) reported benefits to mentees, mentors and organizations including satisfaction, productivity, and socialization for mentees. In a mini review, Coates (2012) consulted the realms of business and k-12 education to understand the motivations, benefits, and potential draining drawbacks of mentoring for application to academic medicine. Higgins and Kram (2001) recognized that our understanding of the benefits to mentors was in the early stages in 2001. The literature in my review indicated some advancement in the knowledge of concrete benefits for mentors. Allen, Lentz, and Day (2006) explored these relationships and reported for mentors from a health care organization “greater salary, greater promotion rates, and stronger

subjective career success than do individuals without any experience as a mentor” (p. 272). Eby et al. (2010) concluded after exploring good and bad mentoring experiences that “although the mentor may benefit from the relationship, the primary goal is protégé growth and development” (p. 89). In a curious contrast for the benefits, Bonilha et al. (2019) reported an increase in faculty considering leaving the institution after the implementation of a mentoring program which stands in sharp contrast to why the program was introduced. This prompts the question: what are the potential burdens of mentoring on the mentors and mentees?

Generally, articles seem overly rosy, or portray mentoring mostly in positive tones and rarely provide advice for mentors when things go awry and off track. Thus, the benefits from mentoring relationships “are presumed to have a positive impact on job and career outcomes, long after a mentorship relationship is terminated” (Chao, 1997, p. 19). Chao (1997) concluded that “most laypersons associate the term ‘mentor’ with a positive, helpful relationship” (p.27). Bland et al. (2009) discussed ineffective mentoring that includes a list of studies and problems most often mentioned by mentors and mentees. Negative issues identified in the literature include experiencing inappropriate behaviors, abrasive style, abuse, neglect, relationship mismatch (Bland et al., 2009; Eby et al., 2010; Ragins, 2012; Ragins & Verbos, 2007). Kram (1983) suggested certain conditions that can lead to destructive relationships for mentor and mentees and emphasized the limitations of discordant gender mentoring relationships. This study only included one female mentor compared to 14 male mentors, a weakness of the study. Ragins (2012) and Ragins and Verbos (2007) explained that mentoring relationships are not always positive, instead falling along a continuum from dysfunctional to high quality. I did not find a publication that indicated how to get out of unsuitable or unsatisfactory mentoring relationships for the mentor or mentee. This positivity and limited measuring of the negative case in mentoring

should be an important consideration for future studies, namely: To examine assumed biases and search for the less desirable or non-existent outcomes of mentoring relationships. Is all that is learned in mentoring relationships positive and worthwhile? Another concern to address in future studies is the need for examining mentoring relationships from both sides and empowering the voices of mentors and mentees. Chao (1997) recognized the limitations of only providing the protégé's perspective. Eby et al. (2010) acknowledged this importance and included both the mentors and mentees perspectives in their study of good and bad mentoring experiences.

Rarely measured and only reported minimally in the literature is the quality and experience of mentoring in general or in programs. There is possibly a bias or an assumption that any mentoring is better than no mentoring and will achieve positive outcomes. Cho et al. (2011) attempted to define the ideal qualities of mentorship. Relational mentoring theorists in organizational science appeared to have contributed the most to understanding quality in mentoring (Humberd & Rouse, 2016). Humberd and Rouse (2016) conjectured that “behaviors provide an indicator of relational quality” (p. 437) in mentorship. Quality of mentoring and the mentoring relationships impact the outcomes and experience (Ragins & Verbos, 2007). Quality is defined here as the emotional and subjective experience of the mentoring relationship (Humberd & Rouse, 2016). Humberd and Rouse (2016) proposed that there are three quality levels in informal mentoring described as dysfunctional, traditional, and relational. Other authors described mentoring quality on a continuum from dysfunctional to relational (Eby et al., 2010; Ragins, 2012; Ragins & Verbos, 2007). Interestingly, traditional mentoring relationships are considered of only average quality and, not surprisingly, dysfunctional relationships of low quality (Humberd & Rouse, 2016; Ragins, 2012; Ragins & Verbos, 2007).

Relational mentoring relationships are considered high quality and closely tethered to mutual growth, including development and benefit to both mentors and mentees (Humberd & Rouse, 2016; Ragins, 2012; Ragins & Verbos, 2007). Ragins and Verbos (2007) identified in the literature three limitations of traditional mentoring relationships. The first limitation is the view of a “one-sided relationship leading to instrumental outcomes. . . a ‘godfather approach’” (Ragins & Verbos, 2007, p. 95). The second limitation recognized that a “narrow lens has been used to assess mentoring outcomes. . . . [a] ‘show me the money’ approach” (Ragins & Verbos, 2007, p. 95). Lastly, “dynamic, cognitive, and affective processes underlying effective mentoring relationships have not been explicated” (Ragins & Verbos, 2007, p. 95). Ragins (2012) outlined a theory based on the evidence showing relational mentoring as an “interdependent and generative developmental relationship” (p. 519) questioning the instrumental approaches and exchange paradigms of traditional mentoring. Ragins (2012) constructed this holistic approach with variables to predict individual’s ability to develop these quality relationships with antecedents such as “self-structures of mentoring, their relational skills and knowledge, and other individual differences variables” (p. 523). Using the metaphor of a sculptor, the “Michelangelo phenomenon” (Ragins, 2012, p. 529), describes the role mentors and mentees can play in high quality relational mentoring to ensure one another’s development of the ideal self. Ragins (2012) explained that “relational mentoring is characterized by shared influence, which involves the process by which members influence and are influenced by each other” (p. 531). Relational mentoring provided an interesting perspective for considering mentoring quality, particularly in contrast to traditional perspectives of mentoring.

In summary, to understand what mentoring is inside and outside the academic setting for faculty, consider the purpose Schrodtt et al. (2003) identified as helping mentored faculty,

particularly new faculty “feel more connected to their work environments . . . report greater levels of satisfaction with academic socialization experiences” (p. 26). This literature strand included very broad concepts of mentoring like definitions, purposes, domains, and types. Knowing some of the terminology and understanding concepts like mentoring phases, aspects of identity, benefits, and quality I now move on to my next literature strand.

A volume of literature exists that explores mentoring policies, programs and practices and will be discussed in the next literature strand. The distinction in the literature between policies, programs and practices is opaque. What some authors and institutions refer to as a practice, others will define as a program. Of note is the relative absence of literature specifically related to policy, which is discussed at the beginning of the next strand. Where possible I use policies, programs, and practices as an organizing structure within this next literature strand. Not all the literature included is specific to faculty, higher education, and the academic medicine context. In some cases, literature from other fields is included to inform mentoring in academic medicine.

### **Policies, Programs, and Practices that Contribute to or Undermine Effective Mentoring in Academic Medicine**

The focus of this strand is on policies, programs and practices in higher education and academic medicine. Each section begins with the findings from systematic and scoping reviews to get the mentoring picture in fields such as organizational science and business management. Where possible I drill down to the higher education literature and, finally, academic medicine publications. Depending on the section, after the literature review articles, I delve more into the weeds, such as reviewing specific institution-wide and organizational programs or practices. The first section is focused on policies or, perhaps more inclusively, paradigms.

## Policies

Discussion and research on mentoring policies is minimal in the literature. This is not to say policies do not exist in institutions. For example, at the University of Wisconsin-Madison there are official Faculty Policies and Procedures (UW-Madison, 2021). A Google Scholar search using the terms *faculty policies mentoring* or *faculty mentoring policies* yielded literature about mentoring programs and models. A search conducted using the keywords *faculty policies* resulted in literature related to faculty policies that were at best only distantly, and tangentially, related to mentoring. The unique institutional or context specific nature of policies may explain their absence in the literature or, when used as search terms, policies and programs are conflated.

In one of the few studies that includes a component about mentoring policy, Fountain and Newcomer (2016) asked university public affairs schools in the United States if a formal mentoring policy were in place. The results showed 34% of respondents said it was but it was only in the academic unit; 14% had a university policy; 49% said no; and 3% did not have a policy but were considering it (Fountain & Newcomer, 2016). In addition, having support for mentoring from an academic unit leader was reported as of the highest importance (Fountain & Newcomer, 2016), another pearl where mentoring is broadly implemented. Bland et al. (2009) maintained that a mentoring program would be more effective if it were instituted by policy, but they did not substantiate with literature or evidence.

Mentoring paradigms are briefly included here as I surmised that the policies implementing programs and the programs themselves fall within particular paradigms, mostly an older more traditional or conventional paradigm. Zachary (2012) classified the traditional ways of mentoring as an “authoritarian teacher-dependent student-suppliant paradigm, a passive

mentee is expected to receive and absorb knowledge” (p. 3). Similarly, there is a longstanding “hierarchical apprenticeship model” (Zellers et al., 2008, p. 563).

In contrast to the traditional paradigm, Zachary (2012) advanced the idea of a collaborative learning partnership, a learner-centered paradigm for mentoring based on principles of adult learning. In this mentoring paradigm, learning freely flows in both directions with all parties having something to bring to the relationship (Zachary, 2012). The essential elements include: “reciprocity, learning, relationship, partnership, collaboration, mutually defined goals, and development” (Zachary, 2012, p. 3). Kolman et al. (2017) described the learner-centered mentoring paradigm for K-12 teacher preparation. Learner-centered pedagogical theory was used for understanding mentoring practices of strong teachers who were mentoring preservice teachers (Kolman et al., 2017). Relational mentoring could be considered a paradigm shift with the reciprocity or mutuality of focus on these high-quality relationships beyond traditional one-sided mentoring (Humberd & Rouse, 2016; Ragins, 2012; Ragins & Verbos, 2007). Based on a review of formal mentoring, Zellers et al. (2008) drew attention to “new mentoring paradigms” (p. 563) for business and higher education triggered by rapidly advancing technology, organizational change, hyper-specialization, and innovation. A single mentoring relationship is no longer regarded as enough, so faculty need to draw on a myriad of sources (Zellers et al., 2008). In this new paradigm direction, Higgins and Kram (2001) introduced a developmental network perspective defined as “the set of people a protégé names as taking an active interest and action to advance the protégé’s career by providing development assistance” (p. 268). This is a movement away from exclusive reliance on the one-to-one mentoring dyad. The first systematic review of developmental networks applied a mutuality perspective lens to developmental networks or these constellations of mentors (Dobrow et al., 2012). Having a network of mentors

may offset concerns about access to the power dynamics of an organization because the mentees then have access to multiple mentors across the institution instead of just the one mentor and their network.

Without evidence in the literature, it is difficult to say assuredly, yet it seems plausible, that policies are the undergirding factors that in certain cases promulgate programs and practices in institutions. With very little policy related literature to review, I turn now to reviewing the programs literature.

### **Programs**

It is hard not to notice how important many institutions of higher education as well as individuals viewed mentoring as gauged by the volume of programs reported. Regardless of the evidence garnered, there has been a great deal of mentoring taking place in the 38 programs reviewed, excluding the systematic reviews. The programs run the gamut from formal prescriptive traditional dyad types to innovative, informal conceptions of peer groups and online e-mentoring. Programs included in this review are consistently described as: informal (Bonilha et al., 2019; Borders et al., 2011; MacMillan, Rawal, Cram, & Liu, 2016; Sorcinelli, Yun, & Baldi, 2016; Tansey & Enyeart, 2009; Yun et al., 2016); formal (Angelique et al., 2002; Beech et al., 2013; Blanco & Qualters, 2020; Borders et al., 2011; Bruner et al., 2016; Buch et al., 2011; Chen et al., 2016; Daley et al., 2011; DeCastro, Griffith, Ubel, Stewart, & Jagsi, 2014; DeCastro et al., 2013; Efstathiou et al., 2018; Faurer, Sutton, & Worster, 2014; House, Dracup, Burkinshaw, Ward, & Bryant, 2021; Illes et al., 2000; Kosoko-Lasaki et al., 2006; Levinson, Kaufman, Clark, & Tolle, 1991; Lewis et al., 2016; Loyal, Porto, & Camenga, 2018; Mark et al., 2001; McBride, Campbell, & Deming, 2019; McDaniel, Rooholamini, Desai, Reddy, & Marshall, 2020; Phitayakorn, Petrusa, & Hodin, 2016; Pololi & Evans, 2015; Pololi & Knight, 2005; Pololi,

Knight, Dennis, & Frankel, 2002; Rabatin et al., 2004; Tansey & Enyeart, 2009; Welch et al., 2017; Wingard, Garman, & Reznik, 2004); traditional dyads (Beech et al., 2013; Bonilha et al., 2019; Borders et al., 2011; Bruner et al., 2016; Buch et al., 2011; Chen et al., 2016; Daley et al., 2011; DeCastro et al., 2014; DeCastro et al., 2013; Efstathiou et al., 2018; Faurer et al., 2014; House et al., 2021; Illes et al., 2000; Kosoko-Lasaki et al., 2006; Levinson et al., 1991; Loyal et al., 2018; Mark et al., 2001; Phitayakorn et al., 2016; Rabatin et al., 2004; Ramani et al., 2006; Tansey & Enyeart, 2009; Welch et al., 2017; Wingard et al., 2004); peers and groups (Angelique et al., 2002; Beech et al., 2013; Blanco & Qualters, 2020; Cantillon et al., 2019; Chen et al., 2016; Dobrow et al., 2012; Lewis et al., 2016; MacMillan et al., 2016; Mark et al., 2001; McBride et al., 2019; McDaniel et al., 2020; Pololi & Evans, 2015; Pololi & Knight, 2005; Pololi et al., 2002; Sorcinelli et al., 2016; Tansey & Enyeart, 2009; Welch et al., 2017; Yun et al., 2016). By far most often, programs reported embedded traditional dyads. There were at least 18 publications that included suggestions for multiple mentors, networks, or constellations of mentors with individuals serving unique purposes. In this section I have synthesized the literature based on systematic reviews and research about programs, descriptions, and a selection of the program examples that were related to these themes: traditional dyads, peer, networks, and group programs; more than a mentoring program; specialty specific; population specific; and e-mentoring. In addition, program attributes, evaluation and assessment are discussed.

Most publications included in this section explore more traditional mentoring programs or relationships in the higher education context. Systematic reviews represent the variety of models in existence. Zellers et al. (2008) methodically reviewed and evaluated formal mentoring programs in higher education and business. The outcomes of this study indicated a need for caution when generalizing from business contexts to academia due to the differences in

organizational culture (Zellers et al., 2008). Zellers et al. (2008) maintained key attributes across programs are more different than similar and models vary considerably. My literature review supported this. Bland et al. (2009) comprehensively described and discussed various aspects of mentoring including definitions, establishing effective relationships, and eight characteristics to consider in setting up an effective mentoring program. Based on a synthesis of the literature, Bland et al. (2009) recommended that a program needs “clearly stated purpose and goals . . . support of faculty and administrators . . . positioned appropriately within the larger organization . . . program design . . . [to be] evaluated . . . linked and coordinated with other similar programs . . . clearly stated administrative structure” (p. 38). To some extent Bland et al. (2009) painted a very positive image of mentoring programs but did not provide much information regarding ineffective mentoring. Fountain and Newcomer (2016), Law et al. (2014), and McRae and Zimmerman (2019) provided similar checklists for program development based on their synthesis of the literature. Without doubt the perspectives and advice that Bland et al. (2009) and Law et al. (2014) shared fits with the traditional approach to mentoring. Additionally, Columbia (2016) offered a promising implementation logic model for schools and academic units that described using inputs, design, and outcomes as organizing features.

I now turn to examples of mentoring programs in higher education. Borders et al. (2011) described a mentoring program for a counselor education department based on the ten Sorcinelli (2000) principles discussed in the practices section of this literature strand. In a gap analysis Bruner et al. (2016) uncovered five top priorities for mentoring programs in a school of nursing: “guidance on producing timely publications (70.4%), mentorship on work-life balance (68%), mentorship on putting together a promotion package (61.5%), guidance on test writing (60%), and utilizing technology in the classroom (60%)” (p. 321). Bruner et al. (2016) provided no

guidance for mentorship on teaching. Tansey and Enyeart (2009) surveyed six institutions that identified all required some type of mentoring program for early career faculty and mentors are not financially compensated for time spent mentoring. Faurer et al. (2014) reported a traditional formal dyad program with weak evaluation data, which is not uncommon for some of the programs in this review. After the yearlong program less than fifty percent of mentors and mentees intended to continue the relationship (Faurer et al., 2014), which speaks to transient needs mentoring can fill.

As an example of an innovative approach, Angelique et al. (2002) introduced “musing”, a hybrid peer program. Angelique et al. (2002) described “musing is a process of creating peer communities that facilitates connections between naturally developing relationships, shared power and collective action” (p. 196). This program empowered new faculty to become change agents rather than simply being assimilated into the system. Angelique et al. (2002) acknowledged that peer mentoring has its own set of limitations. From my perspective, there is potential benefit to individuals and institutions by combining traditional dyads into teams with the bonus of building these musing peer communities and programs. Introduced in the first literature strand was the mutual mentoring initiative program which sought to develop partnerships for mutual benefit (Sorcinelli et al., 2016; Yun et al., 2016). Participants showed high levels of satisfaction with this program (Sorcinelli et al., 2016; Yun et al., 2016). Buch et al. (2011) described a promising program structure with vertical traditional dyads and horizontal peer dyads or groups for mentoring associate professors. Referring to a mentoring program in the field of nursing, McBride et al. (2019) posed a rare question in the literature of whether “having been mentored affect subsequent mentoring?” (p. 156). , McBride et al. (2019) discovered that subsequent mentoring is influenced mostly by the primary mentor. There is a degree of similarity

of the programs represented here with those reported in academic medicine, which is discussed in the next section.

In a systematic review in academic medicine, Kashiwagi et al. (2013) described seven mentoring models in different programs: “dyad, peer, facilitated peer, speed, functional, group and distance” (p. 1030). The traditional dyad was confirmed as the most common (Kashiwagi et al., 2013). Formal mentoring programs reviewed included the following components: “mentor preparation, planning committees, mentor-mentee contracts, mentor-mentee pairing, mentoring activities, formal curricula, and program funding” (Kashiwagi et al., 2013, p. 1029). Kashiwagi et al. (2013) recognized that very few programs reported any barriers to program development. Buddeberg-Fischer and Herta (2006) asserted that the literature included in their review often assumed program success with no standardized method of measuring success and they called for improved evaluation of programs.

I categorized mentoring programs in academic medicine into thematic groups. The first group of programs are examples of traditional dyad, peer, group, network, or combination models of mentoring with most described as formal programs (Blanco & Qualters, 2020; Bonilha et al., 2019; Chen et al., 2016; DeCastro et al., 2014; DeCastro et al., 2013; Loyal et al., 2018; MacMillan et al., 2016; McDaniel et al., 2020; Pololi & Evans, 2015; Pololi & Knight, 2005; Pololi et al., 2002; Ramani et al., 2006). In alignment with this first group of programs, a list of twelve tips for mentors in traditional dyads distilled from participant contributions at a conference is worth repeating here:

Tip 1: Mentors need clear expectations of their roles and enhanced listening  
and feedback skills . . . . Mentors are not born but developed . . . .

Tip 2: Mentors need awareness of culture and gender issues . . . . Mentor and mentee matching by gender and culture should not be mandatory, but available for those who desire it . . . .

Tip 3: Mentors need to support their mentees, but challenge them too . . . .  
Balance support and challenge . . . .

Tip 4: Mentors need a forum to express their uncertainties and problems . .  
. Mentors have problems too . . . .

Tip 5: Mentors need to be aware of professional boundaries . . . . Mentors should stick to mentoring . . . .

Tip 6: Mentors also need mentoring . . . . Mentors for mentors . . . .

Tip 7: Mentors need recognition . . . . Raise the value of mentoring . . . .

Tip 8: Mentors need to be rewarded . . . . Mentors can be rewarded in different ways . . . .

Tip 9: Mentoring needs protected time . . . . Mentoring cannot be done ‘on the fly’ . . . .

Tip 10: Mentors need support . . . . Mentors should not be expected to tackle personal or psychological problems . . . .

Tip 11: Encourage peer mentoring . . . . A pyramidal model of mentoring .  
..

Tip 12: Continuously evaluate the effectiveness of the mentoring programs  
. . . Mentoring is a work in progress.”

(Ramani et al., 2006, p. 404-407)

DeCastro et al. (2013) and DeCastro et al. (2014) reported on multisite studies of mentoring models as an element of a national grant funded career development program. DeCastro et al. (2014) recommended mentor training and development where there is a concern about faculty attrition. DeCastro et al. (2013) reemphasized the need for faculty to have mentor networks. Barriers reported for mentors and mentees consisted of insufficient time and resources (Bonilha et al., 2019). Bonilha et al. (2019) stressed that because mentoring alone is not able to combat retention, additional programming is needed. Chen et al. (2016) and Blanco and Qualters (2020) Blanco and Qualters (2020) evaluated programs with peer mentoring mechanisms. Participants were satisfied with the program and found they were better prepared for promotion and less likely to leave (Chen et al., 2016). Blanco and Qualters (2020) showed that participants gained better insight into their strengths and weaknesses while connecting with peers beyond their department.

The concept of connecting and even collaborating were the most common features for this next selection of articles on peer groups. A unique peer group approach centered around a periodic journal club for new attending physician faculty (MacMillan et al., 2016). Participants were asked to bring a journal article to present, and time was factored in for informal discussion (MacMillan et al., 2016). MacMillan et al. (2016) illuminated three categories from the discussions: “trading war stories, measuring up, and navigating uncharted waters” (p. 312). A novel collaborative peer mentoring program to facilitate career development was implemented and evaluated over several years for medical school faculty (Pololi & Evans, 2015; Pololi & Knight, 2005; Pololi et al., 2002). Initially, for program construction, the authors used Rogerian and adult learning principles (Pololi et al., 2002). The peer group program was then compared with a traditional formal dyadic program to further explore the potential for expanding the vision

of mentoring (Pololi & Knight, 2005). Overall, the program appeared successful with 96% attendance, very little attrition of faculty from the institution, and “participants experienced an enhanced, inclusive and appreciative culture” (Pololi & Evans, 2015, p. 192). Regarding the program results, Pololi and Evans (2015) highlighted “the need for faculty to personally experience the power of forming deep relationships with their peers for fostering successful career development and vitality” (p. 192). Peer relationships and developmental networks also added to innovative mentoring alternatives (Dobrow et al., 2012; Higgins & Kram, 2001; Kram & Isabella, 1985).

Some publications detailed career and professional development opportunities that were not just a mentoring program. Loyal et al. (2018) developed a faculty toolkit based on a needs assessment that ideally would among other things enable faculty to establish mentoring relationships. Unfortunately, only participant satisfaction for the entire program, which was high, was reported and not the relative success of the mentoring relationships. Wingard et al. (2004) developed a structured faculty success program with professional development workshops and a mentoring component. The evaluation included four outcome measures: retention at the institution; retention in academic medicine; improved confidence in skills attained, and cost effectiveness (Wingard et al., 2004). Confidence in skills improved although not uniformly across leadership, research, teaching, administrative activities and “given improved retention rates, savings in recruitment was greater than cost of the program” (Wingard et al., 2004, p. S9).

Given the many different specialties and subspecialties in academic medicine, it is not surprising there were specific programs that targeted faculty in these areas. Welch et al. (2017) surveyed emergency medicine departments across the US and reported that “only 43.6% of departments had formal mentoring programs, many augmented faculty mentoring with project or

skills-based mentoring (66.7%), peer mentoring (53.8%), and mentoring committees (18%)” (p. 369). Phitayakorn et al. (2016) implemented a mandatory traditional dyad mentoring program in surgery with high participant satisfaction, yet there was a need to improve matching of the mentoring pairs. Illes et al. (2000) implemented a program in radiology for early career faculty that scored high for overall satisfaction, although it created confidentiality and time constriction issues for both mentors and mentees. Rabatin et al. (2004) presented a single subject qualitative case study of mentoring experiences in internal medicine. Clearly there were limitations with only examining this one case, but conceptually this qualitative deep dive into a relationship was interesting to consider.

Thematically, this next group of articles explored population specific mentoring programs. Studies focused on gender or women faculty were reviewed and reported (House et al., 2021; Kosoko-Lasaki et al., 2006; Levinson et al., 1991; Mark et al., 2001). House et al. (2021), in a study from the United Kingdom, conducted a systematic review of interventions to promote gender equality and concluded that “the effectiveness of mentoring interventions remains difficult because of weak research designs and inconsistent approaches to terminology” (p. 1). House et al. (2021) called for a standardized approach to future evaluations and stressed that “mentoring is a complex intervention” (p. 1). As a punctuation to this point regarding evaluation, Mark et al. (2001) described different programs in four medical schools across the US and all these programs referred to evaluation without providing any data. This made it hard to assess the relative strengths and weaknesses of the programs reported. Levinson et al. (1991) exemplified the inconsistency in terminology mentioned above by merging mentor and role model words in their study.

Several studies looked at mentoring and mentoring programs or interventions in academic medicine for underrepresented (URM) faculty (Beech et al., 2013; Daley et al., 2011; Kosoko-Lasaki et al., 2006; Lewis et al., 2016). Beech et al. (2013) conducted a systematic review of URM faculty mentoring programs in academic medicine that identified 18 articles describing 13 programs. Programs were designed to increase URM faculty pursuing careers in academic medicine (Beech et al., 2013). The reviewers acknowledged that some programs offered training and skill building seminars to support success (Beech et al., 2013). Beech et al. (2013) noted that program “barriers included time-restrictive funding, inadequate evaluation due to few participants, significant time commitments required from mentors, and difficulty addressing institutional challenges” (p. 2). Lewis et al. (2016) conducted a randomized controlled trial of a mentoring intervention for URM graduate students, fellows and junior faculty in academic medical centers and universities studying the effects related to psychological need satisfaction. The results showed no significant effect after a year but a positive short-term effect at two months (Lewis et al., 2016). (Daley et al., 2011) used a longitudinal cohort design to understand the URM faculty experience and success for a faculty development program that incorporated mentoring. Promotion to associate professor and academic productivity were used to assess program outcomes (Daley et al., 2011). Having mentors, goals that were well aligned with the institution, personal and professional skill development, and peer networking and support were common themes in survey responses (Daley et al., 2011). Another study reported dramatic program participation increases for URM faculty and students but did not quantify their evaluation of the program with evaluation data (Kosoko-Lasaki et al., 2006). Further investigation is needed to know how and what to include in mentoring programs that address the unique needs of URM populations. In summary, some of these studies offered insight, but often

findings contradict previous studies, have only temporary benefit or the program was short lived and there is no longitudinal program data.

Another thematic collection of programs introduced e-mentoring or mentoring with computer mediated communication (Bierema & Merriam, 2002; Chong et al., 2020; Schichtel, 2010). It is not clear if, or the extent to which, e-mentoring has permeated faculty mentoring as yet. Chong et al. (2020), based on research from the United Kingdom and Singapore, conducted a systematic review of 18 e-mentoring articles from 2000 to 2017. Multiple themes were identified including “definitions, role, stages, processes, platforms, evaluation and relationships in e-mentoring” (Chong et al., 2020), p. 195). Bierema and Merriam (2002) proposed that e-mentoring “holds promise for redefining mentoring relationships and changing the conditions under which mentoring is sought and offered” (p. 211). Schichtel (2010), from the United Kingdom, elucidated core competencies and argued that “e-mentoring seemed educationally effective” (p. e248) for medical educators. With the advent of technology to all aspects of life it is not surprising to see application in mentoring. Future developments will be highly likely in this area and will need rigorous study (Schichtel, 2010).

Lastly, the literature addressed the need for evaluation, assessment and oversight of faculty mentoring programs. Law et al. (2014) recognized and recommended that “qualitative and quantitative outcome assessments should be conducted periodically to measure the success of mentoring programs; qualitative indicators include job satisfaction, organization commitment, and worker self-esteem, whereas quantitative outcomes include promotions, research publications, and grant funding received” (p. 5). McDaniel et al. (2020) introduced a “realist evaluation approach (RE), a philosophy used to develop theories as to how and why programs lead to specific outcomes” (p. 105). For reference an example of a longitudinal program

evaluation assessed both short- and long-term faculty satisfaction and productivity of faculty in the program with a natural control group who did not have mentors (Efstathiou et al., 2018). Despite no differences in initial rank, faculty in the program held more senior positions at a distal time period follow up (Efstathiou et al., 2018). In terms of institutional program oversight, Etzkorn and Braddock (2020) reported that both early career and senior faculty saw value and early career faculty preferred accountability to ensure completion and quality of mentoring.

In summary, a substantial amount has been published about varying mentoring programs and efforts to measure and evaluate the mentoring within those programs. Traditional dyads are the dominant model although there is a general movement toward mentor networks, peer mentors and group mentoring. As evidenced, there are programs for different populations and contexts in academic medicine. Many authors have called for improved study designs and evaluation techniques. E-mentoring could be the mentoring of the future. Perhaps e-mentoring will be a similar advent as e-learning and online education. Only time will tell if different practices will be required or the same practices just in a different format or platform. Underlying all programs are mentoring practices, the focus in the next section.

### **Practices**

Embedded within faculty mentoring programs are characteristics of effective mentoring practices, for institutions, organizations, individuals, mentors, and mentees. This section digs deeper into the practice of mentoring in higher education and academic medicine. Much of the mechanics related to mentoring such as different models and programs have been discussed but not whether one is a better practice compared to another. This section contains literature from higher education and academic medicine that identifies frameworks; best practices for mentoring

and models; career stage differences; and content specific mentoring and mentor training. Where available I reviewed systematic reviews and individual studies that add some nuance and detail.

Looking broadly at mentoring as a practice, Etzkorn and Braddock (2020) emphasized the strength and value for mentoring among early and senior career faculty. Their survey results revealed that early career faculty “were significantly more likely to; (a) have had a mentor . . . (b) agree more strongly that participating in a formal mentoring relationship would be a good use of their time, and (c) to believe their department heads could and should do more to encourage mentoring” (Etzkorn & Braddock, 2020, p. 228). Put simply, early career faculty were and want to be mentored (Etzkorn & Braddock, 2020).

There is no doubt what mentoring is, what it does, and how it has been conceived is complicated. Lottero-Perdue and Fifield (2010) placed value on the variability of the practices for mentoring in higher education. In their words “rather than see this diversity as a problem, we see it as a potential resource that can inform design, implementation and evaluation” (p. 37). Lottero-Perdue and Fifield (2010) used qualitative grounded theory to create a conceptual framework for the practice of mentoring that explained the complexity in “five dimensions: (1) intended beneficiaries, (2) locus of control, (3) relationship characteristics, (4) topics, and (5) actions” (p. 39). This framework could accommodate the different models, inputs, outputs, people, and activities of mentoring in isolation and or in combination.

Best practices suggested in research differ with respect to the scope addressed. Some items were very broad such as “creating collegiality” (Nick et al., 2012, p. 3) while others quite specific. Columbia (2016) provided a list of characteristics of effective mentoring practices distilled from the literature and reminiscent of those previously listed for mentoring programs:

1. Development of clear, agreed upon career goals and plans to achieve them

2. Agreeing upon roles for each mentor when there is more than one mentor (particularly important for interdisciplinary scholars) as well as whether technical or psychosocial functions are the focus
3. Setting clear rules regarding meetings (frequency, agenda, and deliverables)
4. Establishing accountability and oversight for mentors and mentees when formal assignment is made
5. Maintaining confidentiality when requested and appropriate
6. Agreeing on communication mechanisms, frequency, and style
7. Measuring progress with timelines
8. Providing constructive feedback
9. Creating an environment of trust and open communication
10. Gradually reducing level of guidance, with encouragement toward academic independence

p. 11

Columbia (2016) synthesized multiple elements of faculty mentoring akin to a systematic review, which was intended as a handbook of evidence-based best practices for faculty and institutional leaders. In addition to the list above, a vibrant checklist of best practices is included that is divided into school/department, mentors, and mentees categories (Columbia, 2016). In my observation, what is not mentioned in either list and does not appear in the literature reviewed is whether there should be any formal recording or reporting process and system between mentees and mentors or whether it is advisable and advantageous to maintain reports or data within the

department or institution as a best practice. In general, this suggested to me that mentoring relationships should be viewed as intimate relationships between the parties.

Other authors have developed best practice lists from research outcomes. Nick et al. (2012) developed a diagrammatic model of the six best mentoring practices focused on mentoring dyads in nursing with four overarching pillars for excellence. Sorcinelli (2000) and Rice, Sorcinelli, and Austin (2000) recommended ten principles of good practice for supporting early career faculty, which were distilled from participant data. Zachary (2012) provided a comprehensive practical guide for mentors based on mentoring evidence along with a range of tools for mentors and or mentees to improve the process by focusing on different practices. Zachary (2012) was not writing for the academic environment and recognized the adult learning theories in play with mentoring relationships. Furthermore, it seems important to note that the checklists provided did not include establishing a mentor review committee for oversight or guidance despite this being a conventional model at institutions like UW-Madison. This does not mean that mentor review committees are a bad practice but are they evidence-based practices? Interestingly, Zellers et al. (2008) emphasized that there is “no evidence that the practice of assigning a tenure review committee actually constituted a ‘mentoring program’” (p. 569).

The items listed as characteristics of effective mentoring above are widely viewed as having the most impact upon mentors and mentees. Traditional mentor and mentee dyads, either formal or informal, were the most common form of mentoring practices reported, yet it is unclear if they were best. Chao et al. (1992) compared informal and formal mentorships and found more favorable outcomes for informal types. Berk et al. (2005) introduced instruments for measuring the effectiveness of mentoring relationships in nursing. Columbia (2016) promulgated separate qualities of effective mentors and responsible mentees in traditional dyads with a common focus

on commitment, engagement, collaboration, initiative, and respect. Angelique et al. (2002) proposed that these dyads rely on a “premise that more experienced faculty will assist, guide, and support the new and non-tenured faculty” (p. 196), which can be problematic. Sands et al. (1991) reported what they considered the ideal nature and types of mentors. Kram and Isabella (1985) studied informal peer relationships and how they function similar to mentoring relationships. Today, these are considered another type of mentoring relationship. The mentoring relationships contrasted in this study were described as hierarchical and traditional or “conventional” (Kram & Isabella, 1985, p. 116).

The need for mentoring faculty is not static, formulaic, or irrelevant to career stage. The career trajectories of faculty in academic institutions are dynamic so it is highly likely that faculty needs change as their careers progress. Mentoring practices should align with these changes. As a faculty member develops and matures professionally their mentoring needs may grow, diminish, and transform. Discussion and research on faculty mentoring needs and practices at the early career or junior stage are quite prominent (Angelique et al., 2002; Berk et al., 2005; Borders et al., 2011; Bruner et al., 2016; Chao et al., 1992; Columbia, 2016; Nick et al., 2012; Sands et al., 1991; Schrodtt et al., 2003; Sorcinelli, 2000). There are far fewer studies looking at the requirements of mid-career (Baldwin, DeZure, Shaw, & Moretto, 2008; Buch et al., 2011) and late career faculty (Huston, Norman, & Ambrose, 2007).

A common domain of inquiry is identifying practices and programs that address new faculty needs, particularly in both career and psychosocial domains (Borders et al., 2011). Chen et al. (2016) recognized the necessity for early-stage faculty to understand the criteria for promotion across the different institutional missions. As numerous studies included in this review addressed early career faculty it is possible that the best practices presented in this section

are more likely to meet the demands of faculty at this stage and may not translate to later career stages.

There was a paucity of evidence with respect to what faculty require in mentoring mid and late career. Mid-career faculty self-identify the need for mentoring, as noted in one study that they were often asked to mentor assistant faculty, but not whether they needed a mentor (Buch et al., 2011). Baldwin et al. (2008) proposed that mid-career tends to parallel mid-life where many transitions take place causing the reevaluation of life goals and commitments. Thus, mid-career faculty may have an increased need for psychosocial support. Yet, ironically, according to Baldwin et al. (2008) mid-career faculty felt they get less attention and more work to do. Bruner et al. (2016) showed a need for mentorship in work-life balance for associate and full professor ranks.

Huston et al. (2007) directly addressed the needs of late stage or senior faculty, using the lens of vitality and engagement. Almost a third of late-stage faculty members in the study were disengaged from the department and or institution despite having outstanding reputations and vitality in other areas of their careers such as research and teaching (Huston et al., 2007). This disengagement was characterized among other things as withdrawal “from mentoring relationships (or giving cynical advice to junior faculty)” (Huston et al., 2007, p. 496). Huston et al. (2007) suggested that this as a “university-wide phenomenon” (p. 496). These results are concerning considering how frequently later stage faculty members are expected to mentor junior faculty forming the basis of many faculty mentoring programs. What remains unclear are the mentoring needs and ideal practices or programs for late-stage faculty.

Another domain of scarcity in the literature is identifying best practices for finding, selecting, or matching mentors and mentees (Hitchcock, Bland, Hekelman, & Blumenthal,

1995). Kashiwagi et al. (2013) described the pairing of mentors and mentees in dyads in four programs in which mentees chose their mentor. Columbia (2016) suggested some choice may improve relationship outcomes but if assigned, data related to the individuals is needed. Pololi and Knight (2005) explained that the pairing process in their program as “the matching of protégé(e) and mentor was based on protégé(e) preferences” (p. 867). This seems to be an inadequate description and further explanation of the preferences is needed. The contrasted group mentoring program described in Pololi and Knight (2005) provides no explanation for how the informal groups were formed. Kosoko-Lasaki et al. (2006) described a program pairing practice in detail which included a survey for both senior and junior faculty that asked about their areas of expertise. There was some opportunity for self-matching with a mentor, but otherwise they were “paired based on: a) academic interests, b) specialty, or c) shared personal interests” (Kosoko-Lasaki et al., 2006, p. 1451).

Humphrey (2010) argued that “selecting an effective mentor involves both the skills and experience of the proposed mentors and the process by which the institution selects and trains the mentors” (p. 167). This prompts the question: What do prospective mentees think aids and abets mentor selection? Emphatically, selection and matching are areas where authors need to explain these aspects of programs more fully and conduct systematic research to better understand their impact on relationships. As Huggett, Borges, Blanco, Wulf, and Hurtubise (2020) put it: There “remains limited understanding of how best to identify and match mentors and protégés” (p. 1). In a world concerned with inequity and social justice, perhaps one place to build a movement is to ensure egalitarian mentoring for all that starts with detailed reporting of how mentors and mentees paired, or groups created. How has homophily and bias influenced pairing in traditional mentoring dyads and constricted opportunity for some social groups to find mentors as

mentioned by several studies? Additionally, matching and selection are areas where a great deal of research needs to be conducted, including qualitative and quantitative studies with natural experimental groups and random assignment to different matching techniques where ethically possible.

Faculty needs in academic medicine demand recognition that clinical responsibilities add to the ongoing workload of teaching, research, and service, which could impact mentoring commitments and preferences and the capacity to mentor. Sambunjak et al. (2006) examined 39 studies in a systematic review and concluded that “mentoring is perceived as an important part of academic medicine, but the evidence to support this perception is not strong” (p. 1103). In addition, the authors found that mentoring was influential “on personal development, career guidance, career choice, and research productivity, including publication and grant success” (Sambunjak et al., 2006, p. 1103). DeCastro et al. (2014) examined mentoring for clinician researchers with nationally funded mentored career development awards and found strong associations between career satisfaction and mentoring experiences for male and female faculty. Chen et al. (2016) described a multifaceted mentoring program for junior faculty in academic pediatrics. Using annual surveys and interviews to gather data, this mentoring program was reported to “bolster satisfaction and enhance retention of junior pediatric faculty” (Chen et al., 2016), p. 2). Reporting AAMC data, Dandar, Field, and Garrison (2017) found that “faculty who have formal mentors are significantly more satisfied with their medical school as a place to work than those who do not. However, only 30% report having a formal mentor.” (p. 23). Other authors have highlighted some of the benefits for institutions and mentors (Coates, 2012; Cross et al., 2019); positive and negative aspects of mentoring (Feldman et al., 2010; Geraci &

Thigpen, 2017; Reid et al., 2012); ideal qualities of mentors (Cho et al., 2011); and strategies for building relationships (Sanfey, Hollands, & Gantt, 2013; Straus et al., 2009).

Most of the literature adopts a generalized approach to the type of content the mentorship is focused upon. This is reflected in mentoring programs and practices previously discussed. Consequently, these programs and practices addressed individual and career development, psychosocial needs and promotion and assumed minimal differences with mentoring for content in one area compared to another. To a much lesser extent practices related to mentoring for conducting research are present in the literature (DeCastro et al., 2013; Humphrey, 2010; Sandi & Chubinskaya, 2020; Sood et al., 2020). Mentoring for teaching and educational activities will be reviewed in the next literature strand.

Sandi and Chubinskaya (2020) maintain that “mentoring is the social foundation of research.” (p. 69) and described a mentoring program to support scholarship success. Similarly, Sood et al. (2020) describes a mentor development program for scholarship. Humphrey (2010) dedicated a chapter to mentoring research faculty, but the discussion was vague and did not differ much from general suggestions for mentoring. Is there a need for mentoring practices salient to different content and contexts? Do practices for specific content look different to general mentoring and how would this impact the outcomes for all involved? In contrast to a one size fits all mentoring mentality, research could attempt to categorize mentoring strategies for context and content.

There is a presence in the literature that advocates for mentor training. In public affairs mentor programs, “adequate mentor training is the only strong predictor of mentees finding mentoring useful for helping them plan and implement a research agenda” (Fountain & Newcomer, 2016, p. 499). In a similar vein, Law et al. (2014) proposed that pharmacy faculty

“mentors should be trained as one should not assume that those with advanced rank possess the skills to effectively mentor” (p. 5). Tsen et al. (2012) implemented a faculty mentoring leadership program and participants testified to enhanced confidence and connectedness at program completion. Sheri et al. (2019) deducted themes of structure, content, outcomes, and evaluations from a scoping review for mentor training. The most developed training programs exist for mentors and mentees on research mentoring content. Several studies communicated the creation, implementation, and evaluation of research mentor training curriculum (Fleming et al., 2013; Pfund et al., 2013; Pfund et al., 2014). Satisfaction, which was high in these studies, was the dominant evaluation metric (Pfund et al., 2013).

I conclude that the evidence for mentoring and mentoring policies, programs and practices is not robust, even though in some areas publications are plentiful. There is great need for further research and more robust program evaluation in multiple areas. Ensuring systematic program evaluation and reporting could go a long way to establish which programs work and what needs improving. This is particularly true for higher education and academic medicine where the evidence base is being applied from business and management studies. Does the context and related content make a difference to mentoring practices? In order to gain greater understanding of mentoring needs and effects, future research needs to focus on studies to define programs and practices that have impact on both short- and long-term outcomes. At this point it is difficult to say whether research has failed to find effective methods to evaluate and measure mentoring experiences or if it is the mentoring experiences and programs that are not contributing what was once articulated. Importantly, there needs to be an increased emphasis on the need to provide program details, matching or selection descriptions, evaluation data and outcomes when research is conducted on mentoring programs. The field of mentoring in

academic medicine needs more rigorous quantitative and qualitative research and fewer review articles, especially as they often include research, programs, and practices outside of academic medicine.

### **Programs and Practices that Contribute to or Undermine Effective Mentoring Specifically for Teaching in Academic Medicine**

This literature strand travels further into the weeds of mentoring to review literature specific to mentoring for teaching and educational activities. Integrated in this literature strand are publications from higher education, K-12 teacher preparation, and academic medicine. The literature is organized and presented based on the themes of mentoring for teaching, or lack thereof, in higher education and K-12 teacher preparation; teaching in academic medicine and mentoring for teaching in academic medicine. Questions and potential lines of inquiry generated by what is missing in the literature are suggested. Throughout this literature strand the phrase mentoring for teaching should be read as an expanded notion that includes not just teaching activities but an educational career in academic medicine. As earlier discussed, the literature stresses the absence or omission of research related to mentoring for teaching.

Despite the breadth of mentoring literature relatively few studies have been dedicated to investigating mentoring for teaching. From outside of academic medicine, Tähtinen, Mainela, Nätti, and Saraniemi (2012) stated that “research on faculty mentoring in teaching in the context of higher education is almost nonexistent” (p. 5). On teacher salient mentoring, Bland et al. (2009) concluded that “only a small number of studies have assessed faculty vitality through outcomes that measure teacher effectiveness” (p. 51). Law et al. (2014) agreed that there is “an identified need for mentoring based on category of profile (teaching/scholarship/clinical service)” (p. 1). In academic medicine, this is compounded “since medical educators rarely

receive training on the mentoring process, they are often ill equipped to face challenges when taking on major mentoring responsibilities. . . .Women and clinician-educator faculty in particular are at risk of inadequate mentoring relationships” (Ramani et al., 2006, p. 404). Sambunjak et al. (2006) suggested future research needs to explore “the effect of mentorship on those interested in education-based careers” (p. 1114). Feldman et al. (2010) acknowledged the “mentoring needs for junior faculty with greater teaching and patient care responsibilities must be addressed” (p. 1). Additionally, clinician educators were “statistically significantly less likely to have a mentor compared with faculty in research” (Feldman et al., 2010, p. 1) particularly when they had more teaching and patient care responsibilities.

A curious oversight was observed in an evidence-based book series dedicated to teaching, published for academic clinician educators. One book from this series, by Humphrey (2010), is devoted to mentoring in academic medicine. Several useful chapters are included for mentoring faculty via traditional dyads or peers. An entire section was written for mentoring special populations such as women and underrepresented minorities. These chapters discussed the general mechanics of mentoring and best practices; however, they are not specific to mentoring for teaching. One chapter, despite mentioning teaching and the “tripartite mission” (p. 163) in the opening sentences, focused exclusively on research mentoring and does not mention teaching needs or mentoring for teaching. It seems odd that a book series on teaching in academic medicine would not include more substantial advice for mentored teaching than “often, the most important role that a mentor will play is to remind clinician-educators that their work matters and is valued by the department” (p. 137). There is such irony in this statement.

Although the evidence is thin, there were a few studies that have explored mentoring for teaching. In higher education, a study from Finland, by Tähtinen et al. (2012) focused on

research on mentoring in teaching marketing to improve skills. The need for “courage and ability to give and receive constructive feedback makes the mentoring relationship mutually beneficial” (Tähtinen et al., 2012). The peer mentoring program was considered novel and called “interdepartmental faculty mentoring in teaching (FMIT)” (p. 5) as a practice for enhancing teaching quality (Tähtinen et al., 2012). The study identified three critical elements of “organizational support, knowledge sharing in mentoring discussions, and handling emotions in mentoring” (Tähtinen et al., 2012, p. 5). Coaching and training can moderate the emotional challenges (Tähtinen et al., 2012). Data for this study was gathered using “an autobiographical self-study or self-ethnography, commonly used in the development of teacher education” (Tähtinen et al., 2012, p. 8). Relational and organizational hindrances and facilitators were also discussed (Tähtinen et al., 2012). Another study in higher education, focused on public affairs schools, explored the contexts of faculty mentoring programs with quantitative surveys (Fountain & Newcomer, 2016). Fountain and Newcomer (2016) reported survey results that “minority faculty are more likely to find mentoring useful for improving teaching skills than are nonminority faculty. In addition, faculty who report high ratings for adequate mentor training within an academic unit are more likely to find mentoring useful for improving teaching skills than those who report lower rating” (p. 497). This study was focused on understanding effective faculty mentoring programs and included this result. Thompson (2006) reported a case study of the role of an informal mentor for online teaching development. In this case, there was a recognized need to distinguish between mentoring for using the technology and mentoring for the pedagogy (Thompson, 2006).

Two research studies have looked at mentoring for teacher preparation in K-12 education (Kolman et al., 2017; Williams, 2001). Williams (2001) reported the experience of a faculty

member's participation in a graduate level course "Mentoring Induction-Year Teachers" (p. 1) to prepare them as a teaching mentor. Various educational theories were promulgated as a framework and included a focus on cognitive coaching for improving teaching and connections between mentors and mentees (Williams, 2001). For pairing the mentors with mentees "matching the teaching styles and ideologies" (Williams, 2001, p. 14) was recommended. Kolman et al. (2017) documented "the mentoring practices of a group of strong MTs" (p. 94), those individuals mentoring the novice teachers in a K-12 teacher preparation program. End of year program assessments and focus group data informed the study (Kolman et al., 2017). Four themes for the mentors emerged: "showing vulnerability, sharing authority, modeling and progressive vision" (Kolman et al., 2017, p. 102). The study limitations would have been minimized had they included the teacher mentee voices in the data. From a methodological perspective, the study used a "reputational sampling process" (Kolman et al., 2017, p. 98) to identify the teaching mentors, a potentially useful method.

As mentoring for teaching requires some knowledge and understanding of teaching in academic medicine, a few articles are included here to provide context and background that is needed to study mentoring relationships for teaching components. In academic medicine the desire for career development in teachers and clinician educators has long been articulated (Gerrity et al., 1997; Levinson & Rubenstein, 2000; Pylman & Ward, 2020; Roberts et al., 2014; van Lankveld et al., 2017). Levinson and Rubenstein (2000) argued that "clinician-educators often do not advance in academic rank, since excellence in clinical care and teaching alone is not adequate justification for advancement" (p. 906). Some of the issues revolved around difficulty with the requirements for establishing regional and national reputations (Levinson & Rubenstein, 2000). Mentoring for teaching was not mentioned as an activity that could address this challenge.

Sadly, Pylman and Ward (2020) maintained that “many clinician educators are saying they don’t teach, they just facilitate” (p. 233) and encouraged clinician educators to look for teaching development opportunities. Again, mentoring for teacher development was not mentioned. Furthermore, Gerrity et al. (1997) emphasized that “medical centers must maximize clinicians’ satisfaction with teaching and understand how teaching affects their overall job and career satisfaction” (p. S90). Despite various ideas suggested, mentoring was not among them. Either the concept of content specific mentoring has not occurred to individuals and institutions as a solution or not enough is known about how to mentor for teaching in academic medicine. Regardless, conducting research in this area could elevate and magnify potential applications and benefits of mentoring teaching activities. It was recognized that “teaching excellence requires training in principles of adult learning and the acquisition and practice of key professional skills . . . across venues ranging from the bedside to the lecture hall” (Roberts et al., 2014, p. 254). Roberts et al. (2014) recommended “aspiring clinician-educators should also seek out opportunities to participate in a community of medical educators locally, regionally, nationally, and internationally” (p. 254). This community concept sounds like the group peer mentoring type activities mentioned in other literature strands. From here I pivot to literature that has examined mentoring for teaching in academic medicine.

Not surprisingly, researchers have constructed reviews from the existing mentoring literature (Castiglioni et al., 2013; Chang et al., 2021; Farrell, Digioia, Broderick, & Coates, 2004; Graziano et al., 2019; Krishna et al., 2019; Santhosh et al., 2020). Santhosh et al. (2020) introduced a mentoring matrix of mentor types for different goals to build a mentoring team for teaching, which was synthesized from the literature. Castiglioni et al. (2013) offered advice for seeking mentorship and being responsible as a mentee and, in so doing,

noted that clinician educators have a slower path for academic advancement. How could mentoring for teaching help escalate the advancement process, as it has for research focused faculty? Chang et al. (2021) developed a framework for department leadership and mentors of different career pathways for clinician educators. The framework contained best practices and milestones on a sample timeline (Chang et al., 2021). Graziano et al. (2019) endorsed a framework for professional identity as a clinician educator, which was built on the literature. Additionally, Graziano and colleagues believed this identity could start early with trainees in academic medicine as “mentoring, advising, and professional identity formation contribute significantly to the development of a future medical educator” (Graziano et al., 2019, p. 623). Farrell et al. (2004) used the literature to formulate steps for seeking a mentor and establishing a mentoring relationship. Krishna et al. (2019) posed a mentoring continuum for educational roles in academic medicine.

Despite multiple permutations of search terms used, only two research studies addressed mentoring for teaching for faculty in academic medicine more directly. Triemstra et al. (2021) conducted focus groups “to obtain participants’ perspectives on their career choice and subsequent formation of their professional identity” (Triemstra et al., 2021, p. 585) as clinician educators. This multi-institutional qualitative study categorized participant responses into five domains of “community supportive of medical education, culture of institution and training, personal characteristics, facilitators, and professionalism of medical education” (Triemstra et al., 2021, p. 585). Within this first domain on community “participants noted how mentors and role models were essential to creating a supportive community” (Triemstra et al., 2021, p. 586). One participant’s comment struck a chord with me as it implied the importance of the need for further study: “I’ve had lots of different mentors, but having someone actually say that you can make a

career out of this [teaching], I had no idea” (Triemstra et al., 2021, p.586). Does this demonstrate there are best practices when mentoring for teaching and education careers? Another study examined “teaching as a competency” (Srinivasan et al., 2011, p. 1211) for medical educators. Six competency cores were identified in the framework along with four specialized competencies, one of which was mentorship (Srinivasan et al., 2011). Srinivasan et al. (2011) cross referenced the competencies, including mentorship, across different educational roles in academic medicine. If mentorship plays a pivotal role, it seems vitally important to conduct research agendas that explores mentoring for teaching in academic medicine.

Some of the questions remaining not addressed by the literature include the following: What does a mentor for teaching need to do and say in mentoring relationships? What are the best practices of effective mentors for teaching? What are the best practices of mentees in mentoring for teaching? How should we be training mentors for teaching? How do we build capacity in mentoring for teaching? What is the best practice for pairing, matching, or selecting mentors for teaching? What mentoring models are the most effective in mentoring for teaching? What factors make someone an effective mentor for teaching in academic medicine? Is there any difference in mentoring practices for general versus content specific mentoring for teaching? What should be included in mentoring for teaching programs?

In conclusion, this literature strand is minimally held together with a handful of studies that are predominantly review articles of mentoring research from other fields and rarely specific to faculty teaching and educational careers. There is some research and evidence such as in higher education and K-12 teacher preparation.

## **Discussion**

Mentoring is complex (Sambunjak et al., 2009). Mentoring is relational (Kolman et al., 2017). Complicated relationships between one or more people are as involved as any social relationship. Pololi and Knight (2005) surmised that “effective mentoring requires chemistry . . . [and] relationship felt forced and artificial” (p. 868) if the chemistry is missing. Mentoring relationships are situational (Tähtinen et al., 2012). These relationships exist in contexts and are focused on content. This review has provided background information defining mentoring and the various components of the endeavor to enable a clear understanding of the state of faculty mentoring in the academic setting. Much has been written on best practices for faculty mentoring and faculty mentoring programs even though it is not always clear if these are evidence-based or adequately evaluated. Unfortunately, beyond the early faculty career stage the literature goes quiet, not explaining and exploring how faculty mentoring needs change over time.

The limitations of many qualitative and quantitative studies include small response rates and sample size; lack of detail for the mentoring relationships like frequency of meetings, assigned or informal initiation; cross-sectional self-report designs without a comparison group; lack of description for the sample and sampling method (Sambunjak et al., 2009; Sambunjak et al., 2006). I frequently noticed studies did not report the duration of mentoring relationships, hence it is unclear if outcomes and effects are equal for short versus long term relationships. The reporting of some studies omitted adequate descriptions of the population involved in the mentoring relationships or respondents to surveys.

The literature reviewed is quite diverse and problematic to call comprehensive or even systematic in approach to explaining the many facets of mentoring. The evidence or literature trail is organic for conceptualizing mentorship; often meandering; thick in publications yet thin for evidence in places with pockets of mystery or gaps in explanation. These gaps include faculty

mentoring policies that have not measured them; nuanced investigation of mentorship for specific contexts and content such as mentoring for teaching; robust evidence of what programs work, work better, or fail and a gold standard for evaluation.

In addition to gaps there are areas that warrant further research and investigation or reinvestigation with diverse populations. For example, it would be beneficial to reconstruct the (Kram, 1983) phases study, which is frequently cited, with tighter controls. Only a few studies have explored the phases of mentoring since 1985 (Bouquillon et al., 2005; Chao, 1997; Humbert & Rouse, 2016). It seems time to conduct similar studies in other fields like academic medicine and higher education, with formal and informal mentored pairs, comparing supervisory and non-supervisory relationships to see if the phases differ. The methodology could be fortified and made more robust with the similar aim from the original study of identifying phases and length of transitions. Then repeat these studies in multiple and diverse organizations where relationships cross different organizations to explore the levers and pulleys operating to drive the relationships through these phases if they do indeed exist. Research needs to study negative cases of mentoring or cases where the relationship halted or got stuck in a phase even if the relationship was generally good. Research also needs to identify the predictors for successful relationships to minimize false starts or failed experiences which are the least productive even if there is fundamental learning for individuals. Repeating some of the studies from organizational and vocational science could shine a light on quality and relational antecedents. There is a huge vacancy in assessing mentoring quality. The continuum identified by Ragins and Verbos (2007) and Ragins (2012) views mentoring in a linear fashion when in reality mentoring relationships are likely to have a similar tapestry as with familial and love interest relationships. If mentoring today takes a village or a network of mentors, not everyone can own the general store. We also

need the butcher, the baker and candlestick maker. We need to explore mentoring for different content and contexts like faculty mentoring for teaching.

For program evaluations of mentoring programs and activities, we need to hold authors, editors, and publishers to higher standards. Even better would be to develop an effective model for evaluating mentoring programs that can become a publishing gold standard or at least guidance. Fountain and Newcomer (2016) supported this idea. McRae and Zimmerman (2019) observed in their systematic review that “among many programs, the reporting lacked objective, standardized metrics and often included only generalized descriptions/categorization of course content” (p. 50). In such a diffuse landscape of information and literature today it is fundamentally difficult to determine the legitimacy of knowledge. Looking at the literature reporting different programs, it is hard to see if a program was effective or the evaluation ineffective – if there was an evaluation. Law et al. (2014) advocated for the periodic assessment and evaluation of programs to ensure success. Improved evaluation methods and more consistency across programs and institutions would be beneficial to the entire mentoring endeavor. I was surprised I did not find more multisite evaluations of mentoring programs in higher education institutions published.

For an activity that consumes a great deal of time and energy of individuals and organizations we need more evidence to shape and hone mentorship, as well as disband the practices and programs that create inequities and uneven opportunities. Is it concerning that organizations have policies for mentoring yet no published evaluations or reports of policy effects? From a professional practice standpoint, should we codify an activity with policy without exploring the impact of the policy?

This research review has several limitations that include inadequate inclusion of studies in some areas or context, such as with women and underrepresented minority populations; not specifically addressing faculty mentoring needs within institutional missions and how they may differ from each other, for example research compared to teaching; and grouping research into themes that may have varying methods and targeted populations.

Sambunjak et al. (2009) suggested that “the largest gap in the existing body of research relates to the limited depth in which the phenomenon of mentoring in academic medicine has been explored” (p. 77). Some areas for future research in academic medicine should involve rigorously measuring what makes a difference in mentoring relationships and programs such as duration, frequency, quality, context, pair matching, assignment or selection and identity congruency. Ideally, these types of studies would include quantitative, possibly experimental designs and qualitative investigation of mentoring and mentoring programs. Of particular interest would be studies of academic medical centers and environments in relation to mentoring for teaching and educational careers.

An important realization is that mentoring research needs to be more surgical and explicit about the aspects of mentoring studied. Sambunjak et al. (2009) supported this and provide an example where “studies reported that mentors facilitated the mentee's visibility and exposure in the academic community. However, there were no research findings on how this is actually done. . . [and] what the facilitators and barriers are in this process” (p. 77). This is important for my dissertation research question and subsequent study. Initially, I thought I would explore policies, programs, and practices of mentoring for teaching, yet this now seems too broad. As there appears to be so little literature in this teaching area and policies in general, focusing on the practices that prepare or fail to adequately prepare early career faculty to flourish in their

teaching seems prudent. Two other major takeaways from my literature review are recognition of the need to include the voice and perspective of both mentors and mentees, as well as the negative case for practices that do not contribute to effective mentoring for teaching. In summation of mentoring, the research and current understanding, House et al. (2021) maintained that although mentoring is popular among those who are mentored “drawing conclusions about the effectiveness of mentoring interventions remains difficult because of weak research designs and inconsistent approaches to terminology” (p. 1).

## **Conclusion**

In conclusion, there are two gaps in the literature where there is an absence of research on the practices of mentoring for teaching generally, particularly in academic medicine. There is a great omission in the literature for mentoring in the domain of teaching. A thick slice of literature exists on general mentoring practices and practices related to mentoring faculty for conducting research. The research on mentoring leaves me asking: What are the mentoring practices to ensure people are learning in academic medicine? What are the mentoring practices which contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers?

### **Chapter 3: Research Design**

My study explored mentoring practices which contribute to, and those that militate against, preparing early career faculty in academic medicine to flourish in their teaching throughout their careers. I used a blended approach (Bredo, 2009; O'Sullivan & Irby, 2011) in pursuing the “metaphorical forest and trees” that captures effective faculty mentoring of early career faculty that will prepare them to become robust teachers. In this chapter I describe my underlying assumptions and conceptual framework, outline my study design, and delve into the weeds of my approach to data collection, analysis, and presentation.

#### **Underlying Assumptions and Beliefs**

I need to acknowledge my philosophical assumptions and underlying beliefs. My ontological, axiological, and epistemological beliefs will shape my research, decisions, and sense making (Creswell, 2013). Ontologically, I recognize that there are many realities (Creswell, 2013) for faculty with respect to mentoring practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers. In my introductory chapter, I shared my values and biases or axiological assumptions (Creswell, 2013) and positioned myself in relation to my inquiry. My teaching experiences, my values, and professional position in academic medicine are some of the driving forces behind my research choice and interest in mentoring for teaching.

My beliefs and assumptions about what counts as knowledge related to faculty mentoring for teaching – my epistemological lens – influences my research methods and findings (Creswell, 2013). Creswell (2013) referred to this as the assembling of subjective evidence in qualitative research, and that as a researcher I need to get close to my participants in the field so I will

“know what they know” (p. 20). My epistemological lens in this research falls within the social constructivism worldview which I further explain in the next section.

### **Conceptual Framework**

My conceptual framework is constructed with an epistemological social constructivist foundation (Creswell, 2013) and figurative windows using positioned subject (Conrad, Haworth, & Millar, 2001) and being an insider-outsider (Corbin Dwyer & Buckle, 2009). Creswell (2013) suggests that in the social constructivist or interpretive frame the researcher look for complex views instead of narrowing to just a few ideas. I rely on my participants’ views (Creswell, 2013) of practices for mentoring for teaching as they are socially constructed during interactions with individuals in the process of mentoring. I carefully wove into my inquiry the positioned subject perspective – my own and my participants’ perspectives – as defined by Conrad et al. (2001) where the position is the environment or location, and subjects are the individuals connected to the action or activity in this environment. It is the understanding of the positioned subjects I seek and how they have made sense of this process and what they have valued in these interactions. Closely related to this concept of positioning is the notion of “being an insider-outsider” (Corbin Dwyer & Buckle, 2009, p. 54) when conducting qualitative research in the field of academic medicine. Corbin Dwyer and Buckle (2009) explained a constant aspect within a qualitative study is “whether the researcher is an insider, sharing the characteristic, role or experience under study with the participants, or an outsider to the commonality shared by participants, the personhood of the researcher, including her or his membership status in relation to those participating” (p. 55). Neutrality in inquiry is not possible yet the insider-outsider view is a way of viewing lived experiences (Corbin Dwyer & Buckle, 2009). I used this frame as it suggests how individuals gain insight from being in a community or society even though they may not be

considered a part or member of the society by those within the society or vice versa. I identified myself throughout the study as an outsider because I am not an academic clinician or faculty member in the field of academic medicine. Throughout the study I often reflected on my biases as an insider-outsider, thereby questioning my perspectives throughout my inquiry.

Social constructivism, positioned subject, and being an insider-outsider as epistemological underpinnings led me toward constructivist grounded theory as developed by Charmaz (2003). In constructivist grounded theory, Charmaz (2003) refers to “grounded theory methods as flexible, heuristic strategies rather than as formulaic procedures” (p. 511). In this way, Charmaz (2003) inspired the need to delve deeper than just the “acts and facts” (p. 595) and look for beliefs, values, and ideologies of participants in the study.

### **Design of Study**

My overall design is a grounded theory study, organized around a single instrumental case (Stake, 2000) and draws on interviews, observations, and document review. In the remainder of this chapter, I describe the design of my qualitative study including my methods, sampling and site selection, recruitment strategies, data collection techniques, data analysis and presentation, potential problems and alternative strategies, protection of human subjects, and the significance of my research.

### **Methods**

I conducted a qualitative interpretive study as defined by Ary et al. (2010) as a single case (Stake, 2000) powered by grounded theory as illustrated by Charmaz (2003), Creswell (2013), and Strauss and Corbin (1990) to identify mentoring practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers. In this way I used case study less as a methodological choice but more

to decide what to study (Stake, 2000). According to Stake (2000), an instrumental case study “is examined mainly to provide insight into an issue or to redraw generalizations” (p. 437). My unit of analysis therefore was a single case or “within site study” (Creswell, 2013, p. 97).

As explained by Creswell (2013), in grounded theory the participants need to have a similar experience of a process that plays out over time so the researcher can develop a general explanation of that process. Mentoring is a process that occurs over time for faculty as they progress in their career, hence grounded theory is well suited to study participant experiences in the mentoring process. Using grounded theory versus narrative or phenomenology inquiry enabled me to move away from individual stories to a collective understanding across the early career faculty experience of the mentoring process for teaching throughout their careers (Creswell, 2013). Grounded theory is a fitting methodological choice because of the absence of an existing theory (Creswell, 2013) as well as very limited literature related to faculty mentoring for teaching in academic medicine. The actions and activities of early career faculty, their mentors, and mentoring committees were the primary focus. The theoretical underpinning for this type of study is naturalistic, that is, an opportunity to study naturally occurring behavior in a setting that is not contrived specifically for research or where the behavior is manipulated (Ary et al., 2010).

As mentioned previously, the constructivist grounded theory approach of Charmaz (2003) is an appropriate guide for my research and dovetails well with my social constructivism interpretive framework. In constructivist grounded theory knowledge is conceived as a product of our own construction, that is, it constitutes subjective meaning (Creswell, 2013). Constructivist grounded theory is well matched to my research where I relied on participants’ views of mentoring for teaching. Charmaz (2003) outlined the strategies critical to grounded

theory: data collection and analysis as simultaneous processes, stepped coding, constant comparative processes, using memo writing to aid construction of theory, theoretical sampling, and evolution of the theoretical framework. Although interviewing is often a singular data collection method in grounded theory (Creswell, 2013), I also included document review and observations to aid with identifying participants and to complete my social and organizational understanding of mentoring practices for teaching. Charmaz (2003) challenged the notion that grounded theory studies should be solely interview studies as “grounded theory methods specify analytic strategies, not data collection methods” (p. 514).

I observed, reviewed, interviewed, and analyzed the data related to mentors, mentoring committees, and early career faculty units which included the faculty mentees who were the focus of the mentoring committee, committee members, leadership, and any staff who assist in the department and school. In the next section, I explain and describe my sampling frame and approach.

**Sampling.** Strauss and Corbin (1990) described the theoretical sampling technique used in grounded theory where sampling decisions are made based on how the source can inform the concepts that are relevant to the evolving theory. As I did not know what “proven theoretical relevance” (Strauss & Corbin, 1990, p. 177) would emerge at this stage in my research, I outlined the following tentative plan which I sometimes modified as I collected and analyzed data. As much as possible from the outset I sought to ensure that my theoretical sensitivity guided my sampling. During open, axial, and selective coding I sampled from data already collected or yet to be collected (Strauss & Corbin, 1990). I selected a purposive sample (Ary et al., 2010) of leaders, early career faculty, their mentors and mentoring committee units, from a medical school at a public research-intensive university located in the Midwest. This institution

is the flagship institution in the state and draws both on students from in the state and out of the state. The current student enrollment is approximately 48,000 students, including undergraduate, graduate, professional and special student populations.

My sample included one medical school as faculty, their activities, and their roles and responsibilities often differ and comparisons across schools would have been problematic. I recognized that there are many medical schools nationally and therefore “a large population of hypothetical cases, a small subpopulation of accessible cases” (Stake, 2000, p. 446) in my selected medical school. I sampled a single, instrumental case where I felt I could learn the most (Stake, 2000) based on a wide range of initiatives, programs, and opportunities within the school. In recent history, my selected site has engaged in faculty research mentorship, and developed, and implemented mentor/mentee training interventions which may have importance in relation to mentoring for teaching. Stake (2000) advocates for selecting the case “that may mean taking the most accessible, the one we can spend the most time with” (p. 446). I used a two-phased approach for my sample and data collection (see Figure 1. Data Collection Phases) to assist with identifying and then conducting interviews and observations with early career faculty participants and their corresponding mentors and/or mentoring committees until I reached theoretical saturation.

I used maximum variation (Ary et al., 2010) in my sampling to include faculty mentors who employ differences in their mentoring for teaching practices, including non-mainstream practices; and early career faculty engaged in teaching in a diverse range of learning environments and with a variety of learners in academic medicine such as traditional classrooms and clinical patient encounters. In grounded theory this variation in sampling begins in open coding where I was “open to all possibilities” (Strauss & Corbin, 1990, p. 181) and I developed it

further through axial coding where it is called “relational and variational sampling” (Strauss & Corbin, 1990, p. 185). As previously indicated, I was most interested in the early career period for faculty. In academic medicine and for my research, I recruited faculty in this early career period which included faculty in their first fifteen years, as a maximum, in their career. This accommodated official extensions to the deadlines for promotion as explained in the next paragraph. This enabled me to include faculty on either side of the promotion clock timeline for assistant to associate professors. I included a range of early career faculty at different times on the clock. I recruited faculty in the mid to late early career period. Additionally, I recruited early career faculty with a wide variety of pedagogical interests, intentions, and learners. I used reputational sampling as used by Kolman et al. (2017). I ascertained early career faculty reputations for teaching by asking departmental leaders in their interviews to identify potential early career faculty participants with a reputation for teaching that had an impact on learning.

Institutional and medical school policies stipulate the length of time a faculty member is employed on probationary status before required to achieve promotion from assistant professor to associate professor. This period is frequently referred to as the tenure or promotion “clock” but depends upon the faculty track. To gain breadth and depth in the sample I included faculty at different clock times; on the clinical health science (CHS) track; with varying years of service; in the early career range as assistant or recently promoted associate professors; teaching focused early career faculty, experiencing relative degrees of flourishing (faculty on track to promotion with no issues or promoted); and faculty, their mentors, and mentoring committees from different departments in the school of medicine at the institution for comparative purposes. My sample from each department was naturally limited by the number of faculty who met the criteria and were willing to participate. It was important for comparative purposes to have different

educational leaders and mentor/mentoring committee/faculty units included from different departments as well as leaders and early career faculty from the same department. I had intended to conduct individual or small group interviews with mentors and committee members of early career faculty, but I was not able to do this.

**Recruitment.** My study was deemed exempt by the IRB. I had two prongs for recruitment of faculty and their mentoring committees. I leveraged my position in the medical school at the university where I conducted my research and my connection to the institutional infrastructure enabled me to contact leaders who suggested faculty who teach that fit my inclusion criteria. I reached out via email to recruit my participants (see Appendix B: Recruitment Email Protocol and Template).

To avoid obstacles for recruitment I provided assurance of anonymity in my recruitment email text, verbal scripts, and consent forms that described how I aggregated data to the codes and how evidentiary extracts were de-identified (see Appendix C: Study Information for Participants). In addition, I used leaders to identify early career faculty I approached for recruitment. Using these recruitment strategies, I was able to obtain a representative sample of early career faculty, their mentors, and mentoring committees and mitigate the bias from using only one approach. Moreover, as faculty, mentors, and committee members had limited time available to participate in interviews I explicitly stated the time requirement for interviews, during recruitment and explained how optional observations of the mentoring committee meetings would yield rich data even without follow-up interviews. The interviews I conducted were with 45-60 minutes.

Once recruitment, data collection and data analysis began I narrowed my focus and only included early career faculty on the clinical health sciences track and education leaders across

departments and the medical school curriculum. My primary criterion for the sample size was data saturation (Creswell, 2013; O'Reilly & Parker, 2013). I observed, reviewed, and interviewed early career faculty and mentoring committee units and education leadership until I reached theoretical saturation. Below I describe in detail the who, what, where, when, how, and why of my data collection approach.

**Role of researcher.** I was the “key instrument” (Creswell, 2013, p. 45) in my qualitative research study. I conducted interviews with participants, reviewed documents, and observed two sessions of early career mentoring – a mentoring committee meeting and a group mentoring session with senior mentor and peers. I saw my role in my research as a non-participant observer (Creswell, 2013), such as when I was observing the mentoring session and mentoring committee meetings. In my researcher role, I was interacting with and asking questions of my data. Coding and interpreting were an integral component of my role as the researcher. In order to learn from participants, I first needed to establish a relationship and build trust with my interviewees. During interviews I consciously used open body language in a level seated pose, ensuring eye contact, and appropriate non-verbal gestures in response to the participants’ stories. I patiently prompted participants for more information when appropriate.

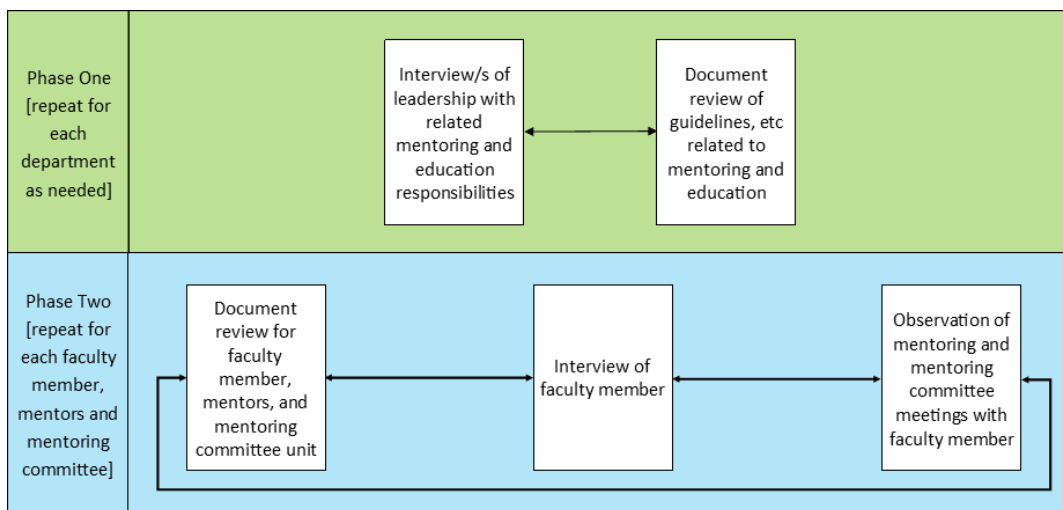
### **Data Collection**

My data collection techniques included interviews, observations, and document reviews – techniques conducted repeatedly, consecutively, and at times simultaneously with my data analysis (see Appendix D: Data Collection Protocols for Interviews, Observations and Document Reviews). In the grounded theory tradition, “data collection and data analysis are tightly woven processes and must occur alternately because the analysis directs the sampling of data” (Strauss & Corbin, 1990, p. 59). Charmaz (2003) specified the simultaneous nature of data collection and

analysis in constructivist grounded theory. Although in the following data collection and data analysis sections I speak separately about these components, I iteratively gathered data and simultaneously analyzed it as an interwoven, back-and-forth exercise.

The sequence of data collection occurred approximately in the following pattern (see Figure 1. Data Collection Phases), with repetition in each department of the section in square brackets for each mentor/committee/faculty unit: first phase educational/departmental leader interviews for understanding departmental, medical education context and recruitment of early career faculty who meet criteria; [document review of departmental documents related to mentoring and teaching; document review of pertinent documents for the mentors/mentoring committee/faculty unit; second phase interviews of the early career faculty; optional observation of the mentors/mentoring committee/faculty unit with early career faculty present]. Early in my data collection I identified practices of the early career faculty, mentors' and mentoring committees that informed structures for later data collection such as pertinent questions for the interview. I now turn to discussing my data collection techniques individually in more detail by addressing the who, what, where, when, and how long for each.

Figure 1. Data Collection Phases



## **Interviews**

I had two phases of interviews. In the first phase, I had dual purposes for conducting semi-structured interviews (DiCicco-Bloom & Crabtree, 2006) with leaders within departments who have responsibilities related to mentoring, education, and clinical health sciences early career faculty. First, these participants offered insight into the process, functioning and purpose of mentoring and mentoring committees that gave me a better understanding of the departmental context for mentoring. In addition, the leaders often had their own experience of mentoring as mentors and early career faculty mentees. It was difficult to gauge if there is a departmental definition or sense of what flourishing in teaching means but the interviews with leaders identified the various perspectives of teaching. I asked questions such as: To get us started, could you please tell me about your title, role, and experience related to faculty mentoring and/or teaching in your department? How do mentoring committees' function related to faculty teaching in your department? What can you tell me about the mentoring practices that contribute to preparing early career faculty in academic medicine to flourish in their teaching throughout their careers in your department? I also probed where necessary (see Appendix D: Data Collection Protocols for Interviews, Observations and Document Reviews). Second, in light of their role, position, and the reporting structures within the department, they shared the types of teaching and names of early career faculty with reputations for excellent teaching. Thus, these interviews helped identify early career faculty that fit my inclusion criteria. In addition, these interviews added to my understanding of the mentoring for teaching process in different departments and contexts. My interviews took place virtually through Zoom. I was physically located in a quiet and private location, so participants felt comfortable and safe. These were individual interviews that lasted roughly 45 minutes and were audio recorded only with automatic transcript creation.

In this phase, I conducted eight interviews with leadership to inform my faculty recruitment and for context (see Table 1. Leadership Interview Participant Demographics).

Table 1. Leadership Interview Participant Demographics

| <b>Leadership Role</b>                  | <b>Degree/s</b> | <b>Department</b>                    | <b>Faculty Track &amp; Rank<br/>(if applicable)</b> | <b>Gender</b> |
|-----------------------------------------|-----------------|--------------------------------------|-----------------------------------------------------|---------------|
| Vice Chair                              | MD, FACP        | Medicine                             | Clinical Health Sciences Professor                  | Female        |
| Vice Chair                              | MD, PhD         | Pathology & Laboratory Medicine      | Clinical Health Sciences Professor                  | Male          |
| Program Director                        | MD              | Medicine                             | Clinical Health Sciences Associate Professor        | Female        |
| Vice Chair                              | MD, FACS        | Urology                              | Clinical Health Sciences Associate Professor        | Female        |
| Program Director/Assistant Block Leader | MD              | Medicine                             | Clinical Health Sciences Associate Professor        | Female        |
| Program Director/Faculty Director       | MD, FAAFP       | Family Medicine and Community Health | Clinical Health Sciences Professor                  | Female        |
| Vice Chair                              | MD              | Psychiatry                           | Clinical Health Sciences Professor                  | Male          |
| Block Leader/Lecturer                   | PhD             | N/A                                  | N/A                                                 | Female        |

In the second phase I conducted semi-structured interviews or “guided conversations” (DiCicco-Bloom & Crabtree, 2006, p. 315) with early career faculty. It was not possible to interview mentors of early career faculty as I had initially hoped. Inadvertently, I did however interview two leaders in the first phase of interviews who are mentors of two of my early career participants, though I did not know that when I conducted these leadership interviews. After I ensured early career faculty consented to the interview and recording, I asked a couple of initial

questions to learn more about the participants' faculty track, specialty/subspecialty, rank, years in career since terminal degree. I launched our discussion by asking: To understand your faculty position in context, please briefly describe your appointment in terms of teaching, clinical, research and service activities that you do? I then prompted our conversation by asking: Please describe any teaching you do or have done including who the learners are and the learning environments in which you teach? I probed where necessary (see Appendix D: Data Collection Protocols for Interviews, Observations and Document Reviews).

I asked early career faculty participants open-ended questions such as: Please describe your experiences with your mentor/s and mentoring committee specifically related to teaching? I also used more structured open-ended questions such as: What can you tell me about the mentoring practices that your mentors and/or mentoring committee employ/employed that contribute to preparing you to flourish in your teaching in academic medicine throughout your career?

These second phase interviews took place virtually through Zoom. I was physically located in a quiet and private location, so participants felt comfortable and safe. These were individual interviews that lasted roughly 60 minutes and were audio recorded only with automatic transcript creation. In this phase, I conducted six interviews with early career faculty. In phase two, I recruited early career faculty to conduct interviews with until I reached theoretical saturation (see Table 2. Early Career Faculty Interview Participant Demographics). I created individualized but anonymous codes for each participant in phases one and two by using my initials combined with the interview number. For leadership interviews this code was simply AS#, and to differentiate early career faculty interviews I used ASECF#. I recorded the names

associated with the codes in a document that only I had access to on a password protected computer.

Table 2. Early Career Faculty Interview Participant Demographics

| <b>Track</b>             | <b>Degree/s</b> | <b>Rank</b>         | <b>Department</b>                    | <b>Time started teaching</b>                      | <b>Gender</b> |
|--------------------------|-----------------|---------------------|--------------------------------------|---------------------------------------------------|---------------|
| Clinical Health Sciences | PhD             | Associate Professor | Medicine                             | 22 years; prior to terminal degree                | Female        |
| Clinical Health Sciences | MD, MS          | Assistant Professor | Medicine                             | 9 years; 2 <sup>nd</sup> year of residency        | Female        |
| Clinical Health Sciences | PhD             | Assistant Professor | Surgery                              | As junior in undergrad; prior to terminal degree  | Female        |
| Clinical Health Sciences | MD, ABOIM       | Assistant Professor | Family Medicine and Community Health | 11 years old; medical school                      | Male          |
| Clinical Health Sciences | PhD             | Assistant Professor | Family Medicine and Community Health | 25 years; with patients; prior to terminal degree | Female        |
| Clinical Health Sciences | MD, MPH         | Associate Professor | Surgery                              | 27 years; prior to terminal degree                | Female        |

Put simply, my rationale for conducting interviews was grounded in wanting better understanding of mentoring and mentoring committees within different departmental contexts, and to identify potential faculty/mentors/mentoring committee units to recruit and unpack promising practices, actions, and activities for early career faculty mentees to flourish with respect to their teaching. Using semi-structured interviews allowed participants, early career faculty, and leaders to tell me in their own words their mentoring experiences while I maintained some capacity to direct the conversation and follow up with questions to dig deeper into relevant

content (Creswell, 2013). Interestingly, the early career faculty recommended to me by leaders were all on the clinical health sciences track and not spread on different tracks as I initially imagined they could be. This added a strength to my data by comparing apples to apples instead of comparing faculty across different tracks. I believe it was important that I included the voices of early career faculty and leadership to provide a balanced perspective of mentoring practices. At the conclusion of the first leadership interview in phase one interviews and the early career interviews in phase two, I calibrated the questions I was asking to see if they were clear and invited them to draw on their experiences. This enabled important nuances to be added to the questions and probes.

### **Observations**

I included data collection from observations of one mentoring session which included one of my early career participants, their senior mentor and four peers, as well as one mentoring committee meeting with the early career faculty mentee and four committee members (see Appendix D: Data Collection Protocols for Interviews, Observations and Document Reviews). These observations provided context to the mentoring and mentoring committee process and “insight into interactions between dyads and groups” (Mulhall, 2003, p. 307). In both mentoring observations there was discussion of the early career faculty mentee’s activities. I conducted unstructured observations to “understand and interpret cultural behavior” (Mulhall, 2003, p. 306).

In these observations my role as the researcher was made clear to participants and I obtained informed consent prior to the start of the meetings (Mulhall, 2003). I was a “participant as observer” (Mulhall, 2003, p. 308) where my role was known to those I am observing. I am a member of the organization but did not have any active role as a part of the mentoring or

mentoring committee in the meetings. My observations positioned me as a nonparticipating observer or an outsider of the group I was observing (Creswell, 2013).

I observed the entire mentoring committee meeting with the early career faculty and mentors present from beginning to end. This mentoring committee meets with the early career faculty member at least once a year. I was only able to observe one mentoring committee meeting. Additionally, I observed the entire mentoring session meeting between one of my early career participants, their senior mentor and four peers who acted as peer mentors. These meetings were in Zoom and all participants attended virtually. I remained silent during these meetings with my microphone muted. I took comprehensive field notes of my observations in general terms and did not record identifying features or details of individuals who attended. I did not use audio recordings or transcription of the meetings. These observations took place after my individual interviews of early career participants.

### **Document Review**

My document review included two early career faculty meeting agendas, minutes and various follow up communications. Other documents used for teaching observations and feedback were shared by four participants. All documents reviewed were for context and background purposes (Ary et al., 2010). All such data was supplemental to my interviews and observations. The exception was where the early career faculty participant shared the summary and agenda documents for the mentoring committee meeting. Another early career participant shared an example of a summary document the committee shares with them periodically. I catalogued these documents as I reviewed them and tracked them as they related to the early career faculty, mentors, and mentoring committee or department using a code for each early career faculty member.

I amassed a considerable amount of data with my data collection techniques and used manual processes for tracking and data management in conjunction with standard Microsoft Office software. I used an identification code for each leader and early career faculty participant to track all related interview transcripts, observations, and documents to them as needed. My doctoral education, prior qualifications and professional experiences have developed my qualitative research skills for interviewing, observations, and document review. I have interviewing and data analysis experience in my professional position on several projects related to teaching and learning. I will now describe my procedures for data analysis.

### **Data Analysis and Presentation**

As the first step in my data analysis, I verified all transcribed texts captured audio recordings, and added non-verbal notations and text from my field notes where appropriate. Coding and analysis began early as is common practice in grounded theory (Charmaz, 2003). The mentoring and mentoring committee meetings and the mentoring practices in or from these experiences are the naturalistic setting which is the focus of the analysis. Ary et al. (2010) described this approach as studying “human experience holistically” (p. 424). The assumption is that people make meaning of their experiences, studying these people and their experiences enlightens knowledge as social construction (Ary et al., 2010). Analysis of the first phase interviews aided with recruitment and enhanced my initial understanding of mentoring. I asked for names of early career faculty who met the inclusion criteria for teaching and then approached them for recruitment. There were rich descriptions in these interviews of departmental mentoring and mentoring committee processes and purpose as well as the individual experiences of mentoring. For the analysis of the first phase interviews, I reviewed all transcripts to identify

important contextual considerations. I broke the transcripts down to show where they answered the different questions and tracked this for each participant interview.

I used the constant comparative method (Creswell, 2013) to compare data to emerging codes and categories. Conrad (1982) defined the constant comparative method as “systematic data collection, coding, and analysis with theoretical sampling in order to generate theory that is integrated, close to the data, and expressed in a form clear enough for further testing” (p. 256).

The first phase interviews provided data regarding the departmental context and description of the mentoring and mentoring committee purpose and informed my analysis and recruitment. The order for interviewing in departments started in phase one and then moved to phase two while observations of mentoring situations occurred after phase two interviews to accommodate the natural setting.

Following the Vaismoradi, Turunen, and Bondas (2013) non-linear process for analysis, I iteratively familiarized myself with the transcripts of interviews and relevant documents. I used the memo writing technique common in grounded theory to help gather and keep track of ideas while collecting and analyzing data (Creswell, 2013). Charmaz (2003) describes memo writing as an intermediary step where a researcher can explain incorporated actions, procedures, and assumptions. For each leader and early career faculty interviews I generated initial codes related to promising mentoring practices for teaching. I began my analysis by coding all the leadership interviews separately and then coding all the early career interviews separately. As new interviews were analyzed I compared the initial codes to other interviews looking for convergence and divergence for promising mentoring practices. In this way I used open, axial, and selective coding used in grounded theory as described by Strauss and Corbin (1990) to arrive at practice categories and spheres of practice categories. Accordingly, my analysis continued on

an individual interview constant comparative basis to review codes, then define and rename as necessary (Creswell, 2013). This process of analysis led back to further data collection, such as conducting another leadership interview or a new early career faculty participant, according to the grounded theory tradition of the integration of data collection and analysis as an iterative cycle (Strauss & Corbin, 1990).

During this analysis I incorporated observation data when available as it provided evidence of practices of mentors and members in the mentoring committee meetings and connected them with the initial codes and themes in the interviews. Again, this analysis of observation data was conducted on a case-by-case constant comparative method (Creswell, 2013). The document review data was analyzed to enrich understanding of the early career faculty activities, teaching activities specifically, what practices the mentors and mentoring committees used, and contextualizing the process. As I analyzed interviews in the second phase I continued with data gathering and attempted to start testing emerging codes in subsequent interviews (Rubin & Rubin, 1995). Analyzing and organizing data in this way with these practices at the forefront enabled me to meet my specific aim to identify practices that contribute to and mitigate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers.

As I analyzed data looking for practices for mentoring generally or specifically for teaching, the perspective of the participant mattered. In the interviews there were some practices frequently mentioned by leadership that early career faculty did not highlight or mention. There were practices that seemed very important to early career faculty, as evidenced in frequency and depth mentioned, that leaders seemed unaware of or did not reference and discuss. To avoid privileging the perspective of those mentored versus those mentoring and vice versa I did not

discard practices only mentioned by leadership or early career faculty participants. Instead, I tracked whether the practice was mentioned only by early career participants, leader participants or was mentioned by both groups. My reasoning is that leadership, people most often doing the mentoring were once and could still be mentored. They have constructed their perspective of mentoring practices for flourishing in teaching based on their experiences as both mentors and mentees. The same is possible for early career faculty who may also be mentoring, formally or informally, those currently in training or at an earlier career stage of development. Their perspective is fused with their experiences and practices. Some early career faculty described how they intentionally avoid, adopt, and adapt practices to address mentoring shortcomings they experienced. In true constructivist fashion mentors and mentees develop their practices from their experiences. Several early career participants mentioned relationships and situations with mentees where they are using these practices. For some practices that are common to both leadership and early career faculty the overlap highlights the different aspects or angles of the practice or perspective, much like the sides of a coin or the multitude of surfaces on a sphere. These different perspectives added dimension to the practices, making the giving and receiving of the mentoring more observable.

As data analysis progressed, I moved individual participant comments into codes and then categories while focused on frequency, depth, and nuance. Frequency was where I saw repetition across different participant interviews, observations, and documents. The depth existed from seeing focused comments or ideas within an interview or observation. The nuance or uniqueness of an interview comment that highlighted something not yet mentioned or that added a difference or deeper dimension to a practice was also included. Most of the practice codes and categories identified are fixed on mentoring for teaching but there are some that were more

general mentoring practices. I included them because they fortify the model that mentoring for teaching relies on general mentoring practices.

I consistently sought to ensure rigor by achieving credibility as described by Rubin and Rubin (1995): transparency with an audit trail and careful record keeping and memos; consistency and coherence with exploration of the codes across the different interviews with leaders and early career faculty and observations or document review, particularly if an example seemed contradictory to others; and communicability with rich, detailed descriptions of the evidence of codes in the observations, interviews and document review. In subsequent interviews, I would confirm codes from earlier interviews by asking directly “would you call that . . .?”. I built trust with participants in interviews with open communication and checked for my understanding with clarifying questions such as “when you said . . . did you mean . . .?” and conducted member checking by providing the final grounded theory and practice categories to several participants. Additionally, I maximized validity by using the audit trail and memo writing to track methodological and analytical decision making and mitigate biases for codes (Sandelowski & Barroso, 2003). I enhanced validity with triangulation using my different data sources as described above with the different perspectives from those mentoring compared to those mentored (Creswell, 2013). As another strategy for validation, I enlisted the help of colleagues in academic medicine for debriefing and discussion as the theory emerged (Creswell, 2013). I continued conducting data collection and analysis iteratively until eventually reaching data saturation (O’Reilly & Parker, 2013).

### **Potential Problems and Alternative Strategies**

It is difficult to estimate how my presence observing mentoring and mentoring committee meetings influenced the behaviors and actions of those I observed. I did not get the sense that my

presence was obtrusive and insured anonymity prior to the meetings starting. Importantly, I was careful in how my presence was explained, my identity divulged, and I was introduced in the setting (Mulhall, 2003). Creswell (2013) suggests there can be challenges with respect to logistics and openness in interviewing with grounded theory. I did not experience this either with recruitment as most people I approached were willing to be interviewed and open in interviews. In some ways I was surprised by the candid and frank comments of some participants that significantly informed the resulting practice categories. I was not able to conduct more observations due to the timing of mentoring sessions and committee meetings that are in some cases ad hoc, infrequent, or occurring at a specific time of year.

### **Protection of Human Subjects**

**Risks.** The human subjects involved in my study included early career faculty, leaders, and associate or full professors/faculty who mentor and/or sit on mentoring committees to provide guidance and/or oversight to tenure-track faculty. The sources of materials or data for my study were my fieldnotes, audio recordings, transcripts of interviews, and other documents related to the department, mentoring, mentoring committee process, teaching, and faculty which included meeting agendas, minutes, summary documents, teaching feedback forms or similar types of documents.

The risks for participants talking about their mentoring experiences were deemed to be low risk according to the IRB review and the study was considered exempt. Mentoring, mentoring committees and meeting experiences for faculty and members are often a natural part of the faculty development and promotion process but they can be stressful and cause emotional distress, particularly for early career faculty. Early career faculty are sometimes uncertain about their progress, and feel or know that when their progress is under review, they may feel some

anxiety. Mentors or mentoring committee members might feel anxiety or stress during meetings if there is tension due to departmental politics or structure, disagreement about what early career faculty need to do or how best to mentor for success. Thus, being observed during a meeting or discussing these experiences in interviews following the meetings, as I did in my study, could potentially be uncomfortable and lead participants to re-experience the stress from the actual situation. I ensured that I had information on hand for institutional resources that can provide counselling or meet other needs for employees, but it was not requested.

There were potential privacy and confidentiality risks regarding personal information for faculty related to work performance and productivity being inadvertently released publicly or made known to leadership that could result in negative consequences. Faculty may have felt observations, interviews and document reviews were intrusive and an invasion or loss of their privacy. My professional position could have caused concern and fear of reprisal for faculty, departmental leadership, and mentoring committees. Participants did not express concerns and seemed willing to participate but I always provided the opportunity for them to stop or have me leave an observation if needed without repercussion.

**Adequacy of protection against risks.** The UW-Madison MRR IRB conducted a review of my study and determined it met the criteria for exempt human subjects in accordance with the following category as defined under 45 CFR 46: (2)(ii) Tests, surveys, interviews, or observation (low risk). Initial interviews with leadership aided identification and recruitment of early career faculty and mentoring committees. I used approved IRB recruitment processes with specific recruitment email text, scripted language and procedures explaining the study purpose and methods, the potential risks, and benefits of participating while always providing opportunities for participants to discuss the study and decline or leave the study as they feel necessary. I

obtained informed consent from all participants for the collection of data and any recordings in observations, interviews and related to or owners of documents under review. I maintained a consent log and ensured that participants knew their participation was voluntary and they could withdraw from the study at any time. All other recordings, transcripts and documents are being kept for the appropriate time designated by the IRB.

To address or minimize potential emotional distress I provided opportunities for participants to debrief if needed after my observations and interviews about any issues or concerns they had about the study. I was ready to share resources or information about free employee counseling services and encourage participants to seek referral to this or a similar counselling service as needed if they experienced anxiety and emotional distress as a result of the study, mentoring or mentoring committee meetings or promotion process. I made every effort to build rapport and trust with my participants by ensuring I adhered to a code of conduct for observations and interviews.

To prevent or minimize breach of confidentiality I used a multi-factor authentication protected virtual platform for meetings, recordings and transcription of interviews stored electronically or with any printed documentation in a locked drawer in a locked office. All electronic files were secured and stored on a network password protected computer drive and multi-factor authentication process. I transferred all recordings and transcripts to the network drive as soon as possible after recording and then deleted the original recording to prevent a breach of confidentiality. I only used de-identified data in my analysis to minimize loss of privacy and any fear of reprisal. I informed participants as appropriate with guidance from the IRB to minimize a loss of privacy or breach of confidentiality and fears of reprisal. I acknowledged potential power differentials between myself and participants as well as between

participants in the study, so faculty would not feel they are being taken advantage of and to avoid coercion.

**Potential benefits.** There were limited, if any, direct benefits for early career faculty, leaders, mentors, or mentoring committee members from participating in the study. I shared with my participants any mentoring practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers. My shared findings could potentially lead to systemic benefits as the knowledge gained may improve mentoring for faculty, departmental mentoring committee processes and success of early career faculty by creating a systemic improvement of mentoring for teaching.

### **Importance of Knowledge Gained and Significance**

As a result of this study, I identified practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their career. Most important, I constructed a grounded theory for mentoring practices faculty for effective teaching throughout their careers. There are systemic benefits from this study that can improve our understanding and knowledge base for faculty mentoring, mentoring committee function and process for early career faculty, mentors, or members of the committees in departments. These mentoring practices as a grounded theory could lead to more teaching and learning success in academic medicine and retention of faculty invested in their teaching throughout their careers.

## Chapter 4: Findings

Based on my qualitative data gathered and analyzed from interviews, observations, and document reviews, in this chapter I introduce my theory of mentoring practices which contribute to and militate against early career faculty flourishing in their teaching throughout their careers in academic medicine. My theory proposes three interrelated spheres of mentoring practices used to mentor the teaching experiences of early career faculty and leadership in academic medicine. The spheres are Situational (S), individual-Relational (iR), and Organizational (O). These are not isolated spheres as there is overlap of the practice categories across the spheres.

### **S-iR-O Grounded Theory Model**

My S-iR-O theory model aims to identify, organize, and explain mentoring practices that contribute and militate against early career faculty flourishing in their teaching. This is my categorization of the mentoring practices grounded in the data. Early in the interviews, I heard participants talk about situations with a mentor or mentee collaborating on a project, observing teaching, and offering feedback. Participants would comment on individual characteristics and facets of their relationships. Participants mentioned the organizational landscape where mentoring practices take place like the mentoring and promotion oversight committees, and department activities to support faculty flourishing. As I listened and analyzed the data, I started to see how mentoring practices were embedded in these situations, individuals in their relationships and organizational features.

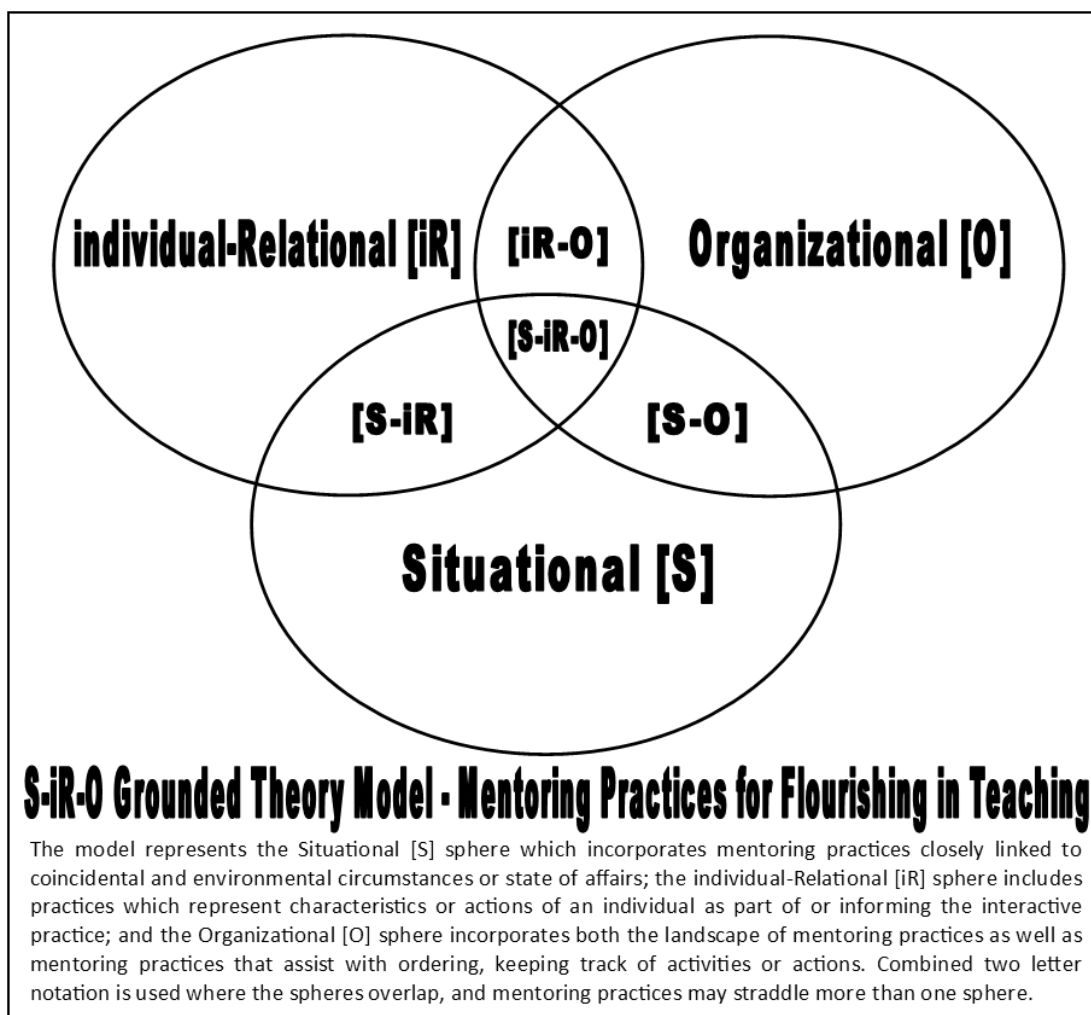
Initially I could not see the connectedness or overlapping nature of the spheres. My early attempts at designing the model showed the spheres as concentric circles or bands that moved outward from the situational core sphere. The situational core sphere was then surrounded by the individual sphere that was surrounded by the relational and then organizational spheres. Further

interviews and more analysis challenged me to find the line between the individual and relational practices. These practices were not isolated but interconnected on a spectrum from loosely to tightly coupled. As I continued to constantly compare initial data with this tentative structure and add new data from more interviews, observations, and documents in my journey of discovery and the model evolved.

In retrospect, around the midpoint stage of collecting and analyzing data I struggled to define where one sphere would end and begin, how one practice would discretely belong or not belong to a sphere or could belong to multiple spheres simultaneously. I contemplated discarding the structure at this stage because I thought I was trying to force a structure on the data instead of letting the data reveal the structure. It became apparent that I needed more data to determine the structure one way or another. I liken this experience to searching for the signal in the noise often referred to in quantitative methods, particularly statistical modeling. As I conducted more interviews especially with early career faculty I could see more into the shadows at the margins of the spheres and how some codes, categories and practices straddled the sphere borders. Once I could identify where these overlapping shadows occurred with data, I was able to reconceive the model as more of a Venn diagram of overlapping spheres instead of concentric spheres or bands (see Figure 2. S-iR-O Grounded Theory Model - Mentoring Practices for Flourishing in Teaching Conceptual Image).

As I coded, and categorized data during continued sampling and analysis, I refined this structure or theory grounded in the data. These S-iR-O practices are interactional, they operate together at times and separately. This graphical depiction of the model indicates the three spheres and how the spheres of practices overlap.

Figure 2. S-iR-O Grounded Theory Model - Mentoring Practices for Flourishing in Teaching  
Conceptual Image



The situational (S) sphere of practices in my grounded theory portrays those practices that are related to or dependent on a set of circumstances or state of affairs for mentoring for teaching. For example, mentoring occurs in or as a result of direct observation and feedback of teaching which is a situation. This mentoring for teaching practice is situational as it relates to the circumstances of the teaching and mentoring. The situational sphere groups together practices that are dependent on the situation and less on individuals, relationships, and organizations.

The individual-relational (iR) sphere of practices in my theory were initially conceived as separate categories. These are practices that relate to characteristics or actions of an individual as part of or informing the relational mentoring practice. It was difficult to determine where and how these practices were reliant on individuals as compared to the relational interaction of individuals. For example, when thinking about relationship building practices for mentoring, is that uniquely the contributions of the individuals or the contributions of the interaction of the individuals. It became too distracting trying to decide exactly where the line should be drawn between the two and made more sense to keep the individual embedded together in or with the relational practices. As mentoring practices in the data typically involve at least two people, this combination of individual and relational spheres of practices seemed logical. I used a lowercase ‘i’ combined with an uppercase ‘R’ to recognize relational practices are always impacted by individual practices and individual practices are pivotal to relational practices. The use of lowercase ‘i’ was intentional to indicate that it is not possible for an individual to experience mentoring without the relational aspect.

The organizational (O) sphere of practices in my theory can be understood in at least two ways. First, the organizational sphere depicts the surrounding landscape of mentoring practices. In some ways it is the departmental and institutional backdrop or the stage where mentoring takes place. The use of organization here is as a noun, for practices of the organization, the department, the institution. Second, there are mentoring practices that assist with ordering, keeping things on track like meeting agendas, mentoring summary letters, structured feedback documents for teaching. In this case organization is being used as a verb, for practices that arrange and manage.

Where practices overlap in spheres, I have indicated this in tables and text with the appropriate sphere abbreviations ‘S’, ‘iR’ or ‘O’ as described above, placed in square brackets in front of the practice category name. For example, the category [S-iR] Advice and Action the text in the square brackets shows the overlap of this practice category in the situational and individual-relational spheres.

I developed eighteen categories for practices that contribute to flourishing in teaching and eight categories that militate against flourishing. The table lists all the practice categories in the model separated depending on if the practice contributes to or against flourishing (see Table 3: S-iR-O Grounded Theory Model – List of Practice Categories). The practice spheres are also identified as described above for each practice category. Additionally, there is notation indicating if this practice was predominantly mentioned by early career faculty (ECF) or leaders (L) with this notation following the name of the practice category. Each practice category is described in more detail below.

Observed in the data for practice categories that contribute to versus militate against flourishing, is this mirroring effect described by Caffarella and Zinn (1999). The mirroring effect is where a practice that is present as contributing to flourishing, is often seen in opposition or as a negative practice that is militating against flourishing. This reflection became more obvious where for example, there were positive person dependent practices there were negative person dependent practices. Another example is the positive communication, contact, and connection practice category that is mirrored in the militating practice category of problematic communication, contact, and connection. This mirroring effect was not observed for all practice categories and even when it occurred it did not mean there was an equality in the degree of reflection or that all aspects of one practice category were reflected positively or negatively.

There are six instances of practice categories that are mirroring each other and are noted with an asterisk ‘\*’ after the practice category name in the table below and the names for the practice category descriptions.

Table 3: S-iR-O Grounded Theory Model – List of Practice Categories

| <b>Practices that Contribute to Flourishing (18)</b>                                                                                                    | <b>Practices that Militate Against Flourishing (8)</b>                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Situational [S] Sphere of Practices</b>                                                                                                              |                                                                                                                                                             |
| [S] Before, During, and After (L) (ECF) – phased components occurring before, during & after mentoring or observed teaching sessions                    | [S] Teaching Difficulty Impact (L) (ECF) – the difficulty of teaching practice in specialty/sub-specialty of academic medicine                              |
| [S] Modeling Behavior (L) (ECF) – mentors role modeling different behaviors                                                                             |                                                                                                                                                             |
| [S] Informal or Formal Sessions (L) (ECF) – mentoring experiences/practices categorized as formal or informal                                           |                                                                                                                                                             |
| <b>Intersection of Situational-individual-Relational [S-iR] Sphere of Practices</b>                                                                     |                                                                                                                                                             |
| [S-iR] Advice and Action (L) (ECF) – advice is given by mentor with action expected of mentee                                                           | [S-iR] Unhelpful, Unactionable Feedback (L) (ECF) * – unhelpful, unactionable feedback that does not contribute to flourishing in teaching                  |
| [S-iR] Encouraging Self-Reflection (L) – encouraging mentee self-reflection of observed teaching                                                        | [S-iR] Heavy Promotion Focus (L) (ECF) * – too much or a heavy focus in mentoring on promotion by mentors                                                   |
| [S-iR] Time, Access, and Availability (L) – regular mentor time & availability or mentee access to mentor                                               | [S-iR] Problematic Communication, Contact, and Connection (L) (ECF) * – problematic components of communication, contact & connection between mentor/mentee |
| [S-iR] Intentional, Consistent, and Supportive (ECF) – intentional, consistent & supportive actions by mentor                                           | [S-iR] Encouraging Work That’s Not Who They Are (L) (ECF) * – mentors encouraging work that does not align with who mentees are & their values              |
| [S-iR] Saying No Without Consequences (ECF) – mentees saying no to opportunities without consequences from mentor                                       |                                                                                                                                                             |
| [S-iR] Opportunities, Collaboration, Sponsorship and Advocacy (ECF) – mentors offering opportunities, collaboration, sponsorship & advocacy for mentees |                                                                                                                                                             |

| <b>Practices that Contribute to Flourishing (18)</b>                                                                                                    | <b>Practices that Militate Against Flourishing (8)</b>                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>individual-Relational [iR] Sphere of Practices</b>                                                                                                   |                                                                                                                           |
| [iR] Communication, Contact, and Connection (L) (ECF) * – fundamental for regular mentor/mentee communication, contact & connection                     | [iR] Person dependent (L) * – individual traits that negatively impact mentoring sessions and relationships               |
| [iR] Knowing Who They Are (L) (ECF) * – mentors need to know mentees and help mentees know self through reflection                                      |                                                                                                                           |
| [iR] Trusting (ECF) – mentees trusting in mentors and self                                                                                              |                                                                                                                           |
| [iR] Relationship Building (ECF) – multiple mentor practices contribute to relationship building                                                        |                                                                                                                           |
| [iR] Person Dependent (ECF) * – person dependent as centers on salience of mentor/mentee identity & personality traits                                  |                                                                                                                           |
| <b>Intersection of individual-Relational-Organizational [iR-O] Sphere of Practices</b>                                                                  |                                                                                                                           |
|                                                                                                                                                         | [iR-O] Who's Facilitating Pedagogical Growth (L) (ECF) * – unclear who is facilitating pedagogical growth                 |
| <b>Intersection of Situational-individual-Relational-Organizational [S-iR-O] Sphere of Practices</b>                                                    |                                                                                                                           |
| [S-iR-O] Mentors, Committees, and Promotion (L) (ECF) * – general facets or backbone of mentoring practices that taking place in organization           | [S-iR-O] Competition (L) (ECF) – mentors creating competition among individuals and competition between academic missions |
| [S-iR-O] Direct Observation, Feedback, and Evaluation (L) (ECF) – critical practices of mentoring for improving teaching                                |                                                                                                                           |
| [S-iR-O] Facilitating Pedagogical Growth (L) (ECF) * – practices to facilitate teaching improvement                                                     |                                                                                                                           |
| [S-iR-O] Ensuring Access to Faculty Development and Resources (L) – ensuring mentees have access to faculty development & resources to improve teaching |                                                                                                                           |

### **Practices that Contribute to Flourishing**

In the data I was able to observe eighteen mentoring practices that contributed to flourishing in teaching. Mentoring generally is a somewhat aspirational activity where the actions of the mentor are believed to positively contribute to growth and success for the mentee. The practice categories that were grounded in the data and represented here identified some of this positive realm and extent of practices experienced by participants. The following is the list of eighteen practice categories with their descriptions.

#### **Situational [S] Sphere of Practices**

### **[S] Before, During, and After (L) (ECF)**

In most interviews and observations there were distinct components of practices that were easily identified as occurring before, during and after mentoring meetings or sessions and observed teaching sessions. Both early career faculty and leader participants, offering the mentor perspective, commonly described this phased practice of before, during and after. The dimensions of this practice were broad including actions by the leader mentor, mentoring committee or early career faculty mentee. For example, several early career participants described needing to update their CVs, complete department mentoring committee forms such as activity summaries and agendas before their mentoring meetings noting achievements for teaching, research, clinical and service. They discussed the role of the mentoring committee chair during the meetings as well as the summary letter the chair sends after the meeting outlining what was discussed in the meeting and action the early career faculty member will take or opportunities to explore. In my first interview the leadership participant discussed dimensions of before, during and after for observing an early career faculty member teaching and then providing feedback. One leader mentioned the struggle of reminding faculty preemptively to “take it down a notch when they’re talking to a first-year medical student who doesn’t even know the terminology” and the rare cases where during the lecture they would need to ask the faculty member a question about the content to remind them “you’re shooting over these kids heads and that’s not good”. An early career faculty participant explained specific before, during and after activities as part of learning to teach mindfulness content. They described the meeting before the teaching session to “come up with an outline for the session. . .provide some feedback beforehand”. Then they described “during the session, we would kind of flow through” or

occasionally pivot. Last, they explained “immediately after the session, we’d sit down and go through that template form, and then have a conversation” for feedback.

Participant descriptions seemed to be situational for this before, during and after practice. The situation was a mentoring meeting with preparation, execution and follow up; observation of a teaching session with prior or in the moment reminders about the need to meet learners where they are at, or the situational gamut of planning a teaching session, delivering, and receiving feedback afterwards. It is this situational aspect that was visible early in my interviews and analysis that lead to the initial conception of this sphere of situational practices. With the constant comparative process in analysis during initial interviews and the ability to test this early facet of a possible theory in later interviews, I was able to establish with participants this is a practice in these situations. Although relatively simple conceptually, thinking of a practice or session and breaking it down in terms of the before, during and after opens a host of possibilities for improving micro mentoring practices at these time points. It can allow a mentor or mentee to ask what they are doing, if anything, before, during and after a mentoring session.

### **[S] Modeling Behavior (L) (ECF)**

In the practice category of modeling behavior, participants were mostly referencing role modeling behavior or this osmosis process from seeing someone modeling teaching. One leader described peer partnering and opportunities for modeling behavior where they would “pair up people, especially in the meeting group sessions where someone experienced, or perhaps someone I thought was pretty particularly effective [in teaching] with the younger faculty members.”. They believed the younger faculty member would be “able to watch how a more experienced person sort of deals with that, and sort of tries to change the dynamics in the room.”.

This participant then exclaimed “that’s just modeling I guess” confirming this mentoring for teaching practice. One early career faculty participant described at length how “a person modeled teaching for me in a way that I guess I hadn’t really seen before”. Prior to seeing this modeling, they believed teaching was more paternalistic with the teacher as the center of attention. The participant identified the mentor really “drew out the wisdom of the group” that it wasn’t about them but the learners. This exposure to a different learner centered way to teach was viewed as “extremely helpful to see” from the perspective of the early career faculty member.

On some occasions participants described mentoring and modeling as well. This seemed to be more informal as a practice where one participant stated the benefit of “informally being with someone who does that [mentoring] well”. A leader felt modeling was important for “a lot of the professionalism, you can’t tell people to do, you have to demonstrate it”. Another early career faculty participant had experienced writing a paper with a mentor and explained how it helped to understand the mentor’s thought process and “even more when she actually explains her thought process. . . not just kind of giving comments or edits”. One leader defined the important nuance underlying modeling by saying “a huge amount of that is role modeling, you know I do try to never ask them to do something that I wouldn’t do myself”. So there seems a layer of integrity important to modeling. This integrity was emphasized by an early career faculty participant when talking about selecting mentors because the mentors said they valued work-life integration, then “role modeling that themselves, not setting after hours meetings”.

### **[S] Informal or Formal Sessions (L) (ECF)**

Participants described multiple mentoring experiences that can be categorized as informal compared to formal sessions. All early career faculty and leaders mention at least one formal or

informal experience and many mention both. This practice of informal or formal sessions has the dimensions of purpose, outcomes, timing, structure and who is mentoring. One leader described informal mentoring for teaching that could be as simple as saying “‘boy, that didn't go well’, at the end of the day that, you know, talking with colleagues that you trust”. Another leader differentiated the need for formal or on the fly sessions related to teaching saying “it depends how deep it is. . . if it’s a quick like yes, no, or here's one idea, and here's where to read more about it” that could be informal, done by email or passing in the hall. This situation could be somebody saying “hey, can you look at this? This is what I’m thinking for this teaching session” and the leader would provide informal mentoring with their thoughts and suggestions. This leader also thought that the frequency of formal sessions was a little less such as for the faculty mentee reaching out for the promotion oversight committee. Another leader defined the mentoring content within two different formal situations, sharing “unless there has been a problem that's arisen. . . it's not so much about you know how they're teaching. . . not like directly how they are developing their teaching skills! But not in the promotion oversight committee, that would come up more in the mentoring”. A different leader suggested “those [formal] committees tend to not do a very good job of being able to specifically mentor and improve quality of teaching. They may assess and make recommendations and help out the faculty member in terms of opportunities for quantity” which poses the question of whether informal or formal sessions have different outcomes. Generally, participants did not indicate informal or formal sessions as more effective except that leader. The formal mentoring committee meeting I observed for an early career faculty participant included a lot of conventional structure with an officially identified committee chair who ran the meeting according to an agenda with discussion of activities across all mission areas. Noticeably the

mentors on the committee had specific mission areas they would comment on or where they would provide advice such as one mentor for the clinical mission activities and another for the teaching and education scholarship activities.

One early career faculty participant was very clear in explaining they “don't have a committee that meets on a regular basis and gives me reports. . . sometimes I think that that's not necessary work” but they were offered the opportunity for a mentoring committee. This participant seemed more interested in informal mentorship sessions and finding mentors from “these relationships that form in the process of doing the work”. They aligned the formal mentoring to “like dating in middle school. . . like you need that real definition of like we're going steady now. . .with a very specific stamp on it, that we're together and everybody knows”. They described how people they think of as informal mentors may not even be aware but could ask “can you help walk me through, there's a struggling student who needs remediation like, how can we do that better?”.

Many times, the governing factor for this informal or formal sessions practice occurred as or due to situations which led to including this practice in the situational sphere. It was difficult to ascertain if the situation completely determined the need for the informal or formal practice.

### **Intersection of Situational-individual-Relational [S-iR] Sphere of Practices**

#### **[S-iR] Advice and Action (L) (ECF)**

Not surprisingly for a study about mentoring this category for advice and action as a practice bubbled up in the data. There were several comments from leaders about the type, content and way advice was delivered that contributes to flourishing. One leader outlined the importance of “the ability to provide thoughtful advice and the desire for whomever you're

mentoring, you want that person to succeed. So truly selfless, thoughtful advice, right?”. This type of advice seems related to concerns about advice being provided that is not selfless and more inclined to serve the interests of the mentor than the interests of the early career faculty mentee. Some leaders provided examples of advice such as “say like, ‘well, what about this opportunity?’ or ‘I wouldn’t focus so much on that’, maybe like, you know, ‘focusing on this’”. One leader reflected on their early faculty experience and needing their mentor to “give me permission for things like I didn’t know what I was even allowed to ask for”. Another leader suggested it is helpful to advise early career faculty on “what to say yes to, what to say no to”. This topic of advice about saying “no” to opportunities developed as a separate category that explores the consequences of saying no and will be discussed later in this chapter. An interesting example of advice was provided from a leader about teaching in the operating room (OR) and the need to “get comfortable in your own two feet first, and that might make a few residents cranky as they’re trying to learn from you”. The OR is a unique environment for teaching based on reflections from surgical faculty interviews in my study. There was something poignant in these reflections and their descriptions of the struggle to let go and allow learners to perform parts of the procedure. One early career participant called this concept of letting go, entrustment which informs another practice category militating against flourishing discussed later in the chapter.

Knowing what action to take as a result of the advice was particularly salient to early career faculty. This thoughtful reflection from one early career participant highlighted some of the turmoil they can feel when “as an assistant professor, you are told a variety of things from a variety of people, who do I listen to even on the mentoring committee?”. This participant indicated there are skills developed for interpreting advice from mentors. Another early career participant spoke about teaching evaluations, a similar type of advice with an action or response

that is needed. This participant felt there is a “need to do a better job of helping faculty to understand how to interpret and to take these evaluations, and to, you know, certainly use them as a platform for growth”. When I asked an early career participant specifically how they knew what advice to take action on they explained the importance of trust and selecting mentors that you trust for the committee. Trust is also a separate category discussed later in the chapter.

### **[S-iR] Encouraging Self-Reflection (L)**

Only leaders, as mentors, talked about the practice of encouraging self-reflection in mentees and generally it related to the observation of early career faculty teaching. One leader conveyed the first thing they ask after observing early career faculty teaching is “how they think it went”. This then allowed early career faculty to “give themselves their own advice”. This leader also saw this as a shortcut to “get miles past having to explain things” when the early career faculty member engaged in the practice of self-reflection. Another leader mentor shared where they must “develop that culture of reflection” as a practice. They also referenced the importance of “time to reflect and then discuss kind of the approach” in teaching situations. One leader described a more formalized practice for self-reflection that included a pre-meeting survey completed by the early career faculty member that can then be used to develop “an individualized development plan”. This formalized practice was similar for another leader mentor but involved questions they always ask like “‘what do you think went well’, ‘what didn’t go as well’ and then . . . I often will provide my assessment as well”. They do not use any kind of structured survey or rubric.

One of the leader participants was reflective of their own teaching and shared “mentoring in teaching, that's harder. . . . I wish I was a better surgical teacher. I think that that's incredibly

hard. . . . I know that the thing that the residents complain about is that I won't give them enough autonomy in the operating room because it's really hard to watch somebody not do a good job or struggle". In surgical learning environments there is a lot of tension around teaching and autonomy for learners.

### **[S-iR] Time, Access, and Availability (L)**

Time, access, and availability was a practice some leader mentors thought of as significant. Often when describing this practice, they used words that indicated the dimension of size such as "time and availability are a huge part of it" or "the biggest thing for mentoring is for me, has been, it's access right? It's access to your mentor". The leader who made this last comment went on to explain how this access to a mentor is protected by having regular monthly meetings scheduled, "whether we had something to talk about or not is a big relief, because you don't, you know, you constantly have questions". Another leader indicated "one of the problems with mentoring faculty is time. It takes time to do this [mentor for teaching]. Not everyone has time to study best practices in teaching". One leader spoke about time from the perspective of having early career faculty consider their time for teaching. They suggested asking explicit questions when early career faculty are considering teaching activities such as "what time do you have available for teaching?" and "what would fit in that time?". These questions were driven by the way clinical responsibilities exist in academic medicine. The leader illustrated how clinical activities are organized: during a week to specific days and times such as two clinic days each week; or distributed across weeks such as on service for a week, off service for a week. This changes the type of teaching activities early career faculty can engage in and an important component for mentoring discussions.

### **[S-iR] Intentional, Consistent, and Supportive (ECF)**

A practice similar to having regularly scheduled time to preserve mentor access, but described by early career faculty, was an intentional, consistent and supportive practice for accountability. When describing a weekly mentoring session with a senior mentor and peers, an early career faculty participant said “it’s consistent. I know it’s going to happen every week. . . if I don’t show up for a long time she’s going to be like, ‘what’s going on?’”. I was able to observe one of these sessions and could see how beneficial it was for those attending with a crowdsourced approach to mentoring and feedback. The mentoring group was centered on something concrete by prior solicitation for people to present or bring something to discuss like a current struggle, every week. This participant indicated “the accountability to continually reflect on what your needs are, has been really helpful”. They also said it was not just the accountability of showing up each week but the need to be actively contributing which would be noticed by the senior mentor if a not regular occurrence. Another dimension of consistency was the commitment of the senior mentor for the group who shows up every week and very rarely cancels. An early career participant discussed the consistency of the messages from the mentoring committee and revealed “if one person was going to say the message that they were sharing, they would say that consistently. They weren't waffling. It was their true belief about what should happen”. For this participant this consistency helped to build trust.

One early career faculty participant defined their most impactful mentoring experience as “so intentional and consistent”. This experience was a deep dive into mindfulness teacher training. They would work with a different teacher for a period of eight weeks and one teacher that would oversee their progress over the course of three or four teaching experiences. The early

career participant felt they were “an active participant in the mentoring experience” and these teachers mentoring them “met me where I was at”. This was an intentional, consistent, and supportive experience for the early career participant. Another early career faculty participant also mentioned this sense of consistent support.

### **[S-iR] Saying No Without Consequences (ECF)**

This practice of being able to say no without consequences was only raised by early career faculty participants except for one leader, who as previously mentioned gave early career faculty advice about what to say yes or no to. When early career faculty described this practice, they spoke more about the consequences when they say “no” if a mentor offers them an opportunity that for whatever reason they are unable to do. From the early career faculty perspective, contemplating saying no can cause anxiety as this participant shared “I ruminate a ton, you know, if I’m going to come back to a mentor and say ‘no, I can’t do this now’. That causes a lot of internal stress that persists for a bit of time”. This participant described several experiences of saying no to different mentors and many were very positive experiences where they felt the mentor “was extremely respectful” and continued to offer future opportunities. When the participant has lots of opportunities from one mentor and frequently has to say no, they said the mentor was “just so gracious, understanding and continues to invite me to participate”. A negative experience this participant revealed left them feeling “like there was like a shut off. . . I felt a little bit put off from it”. When I asked them to explain exactly what conveyed this feeling they said it was “sort of like an abrupt tone of ‘okay, well, I’ll find somebody else then. . . But in that moment, there is just a sense of I’m not useful to him if I’m not going to do everything that he recommends”. Upon reflection the early career participant realized that this

mentor had not offered opportunities since that time despite maintaining a good relationship and suggested it may be a factor of circumstance. Two facets to take note of from these descriptions includes the tone of voice used when responding to early career faculty saying no and the presence or absence of offering future opportunities. The participant concluded the narrative with explaining this was “just one moment in our relationship where I felt ‘gosh! This just doesn't feel supportive to me as a mentee”.

Another early career faculty participant described their own actions now that they are serving on mentoring committees. They made an interesting distinction of a practice they use but only if not the leader of the mentoring group where they will ask ““what can I take off your plate?” . . . often is the case that people just feel like they need to keep saying yes to things”. This participant also described a mentoring exercise they had done several years earlier where they needed to assign all the tasks they do in a week into buckets like “things that really make you flourish, . . .feel like your best self. . .and then things that you really just wish someone else would do”. They believe explicitly asking people “what are the things you wish you didn’t have to do” is a helpful mentoring practice. Furthermore, they recognized there are times when they have had to help people reframe things when somebody says it’s not important to them and “I actually think it is really important to them”.

### **[S-iR] Opportunities, Collaboration, Sponsorship, and Advocacy (ECF)**

An important practice identified by early career faculty participants but not leaders was opportunities and collaboration. An early career participant provided examples of collaboration with their mentor such as teaching or writing a paper together. Another early career participant explored what it meant to have an opportunity to get involved where they could lead or co-lead,

make decisions and “have the authority to do that”. They described this as being in partnership or not alone meaning they would “sink or swim together”. In terms of being offered an opportunity from their mentor, they expressed they had the “first right of refusal . . . then doing the work to earn the ability to write the scholarly product or present it”. This participant went on to explain “now I become the mentor and back off and bring other people into the fold”, this concept of not stagnating but sharing the opportunities by working with others. They described this as “not just to continue in that space but move forward in that space”. In another situation with a different mentor this participant characterized the action of the mentor as “deliberately and not deliberate” regarding opportunities to collaborate. This was a situation with “things that evolved, almost like timing. . . . He needed to create things and I wanted to create things. I wanted to create things that matched with some of the initiatives he had, a perfect fit at the moment”. This dimension of the timing of opportunities seemed symbiotic or mutually beneficial. Another early career participant found learning in the opportunity to co-edit book chapters with their mentor. Most of the learning centered on how to communicate with the authors and the publisher especially when frustrations developed and the mentor “would model like very professional communication to the publisher”.

Related to opportunities was the importance of sponsorship and advocacy. A couple of early career faculty mentees talked about sponsorship and advocacy when a mentor would see an opportunity cross their desk that would align with the mentee and then make them aware of it. One participant said in relation to mentor sponsorship, “he’s like keeping me in the back of his mind” for a future award opportunity. Another participant emphasized the element of trust in advocacy and sponsorship where they trusted in the help the mentor offered to provide for

helping to get leadership buy in on a project. This help was not needed in the end but from the mentee perspective: “I trust that she would do that if that were required”.

### **individual-Relational [iR] Sphere of Practices**

#### **[iR] Communication, Contact, and Connection (L) (ECF) \***

All early career participants viewed the practice of communication, contact, and connection practice as fundamental. This practice included the dimensions of purpose, types, tools, ways to connect, frequency, and qualities of listeners. One early career participant gave examples of mentors using questions. They described this “skillful use of questioning” for fostering their relationship over time. In another example they referenced the mentor use of provoking questions that challenged them to think about whether they should continue with a teaching activity. Early career participants suggested the use of calendar appointments for themselves and their mentors to remind them to check in at regular intervals. One participant mentioned feeling this sense of “warm appreciation” because their mentor would always send a card after teaching together. Email, text, and phone seemed popular avenues for regular contact and some participants mentioned forms or documents used for formal communication between their mentoring committees. The frequency for this contact in some cases was need dependent and an early career participant shared they “have a lot of contact outside meetings” and mentors were “explicit about if you need to check in don’t need to wait, we’re here to support your development”. One participant expressed concern about their loss of contact and communication with mentors due to the pandemic where their clinical specialty was particularly hard hit with patient demand. One participant noticed the “behavior of this one mentor in a meeting was very different than the one-on-one conversation”.

One leader mentioned contacting the mentee “reaching out and saying, ‘how are you doing?’” which they characterized as “follow up”. Early career faculty also mentioned this need to “check in”, “reach out” and “touch base”. Similar to check in, this “check back” practice was described by one participant “if there's been an area where I needed support or improvement like we do check back in about that - Did that get resolved? And if not, you know what do we need to do to make that happen?”. This participant emphasized “definitely there’s connection” because of this check back. Another early career participant exclaimed “showing up and checking in is super important”. They specified their mentors as this “sort of loose-y goosey conglomeration of people that I’d see as mentors but none of them feel necessarily that I’m one of their responsibilities, so they don't necessarily reach out and check in with me”. So, it seems important to operationalize the check to see how things are going requires some acceptance of the responsibility and the participant thought “it important as a mentor to feel that responsibility to check in with the other person”.

Lastly, early career participants described qualities such as tone of voice used by mentors as well as qualities of the mentor such as the need for “being a non-judgmental listener, a reflective listener and kind of sounding board”. They also mentioned when they are mentoring, they “try not to offer advice unless it's asked for”.

### **[iR] Knowing Who They Are (L) (ECF) \***

Both leader mentors and early career mentee participants mentioned this practice for knowing who they, the mentees, are. There was, however, a difference in the directionality where mentors were focused on asking questions and encouraging reflections for early career mentees to determine who they are. Yet, early career mentees were emphatic about mentors

knowing and remembering who they are although they did not indicate ways mentors should do this. Some of the questions one leader suggests mentors use include “what do you feel like is your unique contribution here? What are you passionate about? What do you bring to the department? To the medical school, to your learners and patients?”. This participant reflected on two reasons they think these questions are essential is “because that's personally gonna be sustaining, you know, meaningful work” and as “a community of teachers and learners, . . . it's in the best interest of the department and the medical school to have a lot of different people who have different talents and interests and skills”. There was an element related to promotion in this leader's questions but first they focused on ““do you like to come to work?”. . . and then we can talk about like the ‘things that make you happy and bring you joy in your job’ like, ‘are those going to be sufficient to get you promoted’, or ‘do we need to, you know, buff up this or that area?’”. In this example the focus on promotion was secondary and seen as likely to be the result after finding what brings joy to early career faculty first. Another leader mentor suggested “understanding what their interests are, where they're coming from” and then “what are their goals”.

One early career participant wanted their mentors “taking time to listen and understand what my goals are and not projecting on me what they think my goals should be”. They were quite emphatic they did not want mentors “pushing onto me experiences that are good for CV building but not align with what I want to do, like ‘just do this because it will look good on paper’”. They want their mentors to prioritize getting to know them personally, understanding what life looks like outside of work, to understand like what their capacity is to take on work, and what their values are. Another early career participant shared an experience where their mentor acknowledged “you know what, that's when you light up. You light up when you can

brainstorm and interact with people and develop something. . . . I've never seen you, you know, light up about the research". This mentor helped the mentee navigate to find out what makes them light up. This also shows the need for observation by the mentor to recognize who the mentee is and where their passions are. This early career participant also recognized that a mentor needs to get to know you first before offering opportunities and you "can't get to know each other until you've been with them for a while". Not surprisingly this mentee identifies this "getting to know you" practice takes time. An interesting reflection from another early career participant explored how they "live in sort of narrative world". They explained they are "always sort of telling stories about myself". When they are now mentoring, they encourage mentees to "tell me your story then I can help you try to figure out how to be successful". This participant considers "as humans we're just very narrative driven people" and contrasts this in surgery where they tend to focus on tests and technical skills. So, when mentoring they "try to get people to be more narratively inclined" to get to know them.

### **[iR] Trusting (ECF)**

As a practice the relevance of trusting was only mentioned by early career participants. This practice was closely related to advice and action as well as relationship building which is discussed later in the chapter. One participant shared in relation to their mentors, how they "really trust them to keep what I say in confidence. So, I still reach out to them quite a lot". In this example trust seems to designate faith in the mentors leading this early career participant to continue maintaining the relationship and connecting with these mentors. They also communicated how they feel "very fortunate I think to have people that I really trust, that give it to me straight". After observing this participant's mentoring committee meeting, I was able to

follow up and ask them how they know whose advice to follow and they said it was trust, particularly for one of the mentors on their committee who they mentioned more frequently and specifically in their interview. One early career participant posed these questions of “who do you trust, who is going to give you that final guidance” and then concluded that “trust is just a huge piece in that mentoring”. They also intimated the value of having “trust in yourself, got to take responsibility”. An intriguing component of trust they highlighted was how prior experience with trust in mentoring and advising relationships can play forward in mentoring. In recognizing “that's the part with trust too, people's experiences are so very different” they went on to explain how they had to rebuild trust for their first faculty mentoring relationships. They acknowledged that some people would “not really have to build that trust because they never had that trust broken from a prior experience”. This may indicate the far reach of trust in mentoring.

### **[iR] Relationship Building (ECF)**

Early career faculty talked about the practice of building their relationship with mentors. One participant acknowledged the need for “fostering that relationship over time”. Another participant acknowledged the practice of knowing the mentee to build the relationship but identified that is not static and the importance of “remembering those things and coming back to because some people could change too, over time”. One participant mentioned the reason they went to a location was because they wanted a mentoring relationship to develop with a certain faculty member. They described how they initially built the relationship from an occasional cup of coffee to something much deeper for mentorship. Some of the traits or actions they described for the mentor help identify needed components for building the relationship such as “the inviting presence that he had as a mentor. He was very interested in what I was doing, what I was

thinking. He valued you know, who I was”. This participant also compared this informal relationship with assigned mentors or the formal mentors and considered that these are not relationships like that. They continued to say, “don't think I ever had an expectation that it would be like that . . . academic mentors that are assigned, they have their own lives, they have their own work, their own career, things that they need to kind of check off”. It is perhaps telling what they indicated these formal mentors have as informal mentors would also have their own lives and work. Something in the way this participant did not notice this may say something about the nature of their informal mentoring relationships. This participant was very reflective of their mentors, having created a list of mentoring relationships in preparation for the interview. This was the only participant who characterized their mentoring relationships as and used the word reciprocal when they stated ‘it's a reciprocal relationship. And yeah, none of these are really one-sided relationships which feels very special”. One participant matter-of-factly stated a “huge amount of it is just relationships with people” when describing mentoring practices.

### **[iR] Person Dependent (ECF) \***

This person dependent category of practice described by early career participants centers on the salience of identity and personality traits of both them and their mentors. When portraying the characteristics of mentors for teaching, one participant noted different individual traits that related to the teaching experience. This participant exclaimed for one mentor they were “very strict. She was like, showed up an hour before the class every time. She had a very particular way of teaching, a very particular way of providing feedback as a mentor”. This participant felt a little intimidated and uncomfortable at times but maintained they learned a lot about teaching from this mentor. This mentor appeared to give a lot of feedback with multiple things they were

required to work on. Another mentor they described as “a little quieter, a little bit more reserved” and only requested they develop one aspect of their teaching at a time. The last mentor for this teaching they depicted as “a little bit less formal”. When I asked what practices or aspects, this participant thought these mentors had which could inform mentoring they thought “warmth” and described how these mentoring teachers made them feel “really cared for or like cared for my entirety. Not just am I being looked out for as a faculty member”.

Another early career participant disclosed they were a first-generation college student with parents who are farmers. This participant felt for the “academic part of things it’s learn as I go here”. They shared how they felt they “had no idea what degree of production was expected of me as a resident” and “no idea of you know calibrating expectations”. For this participant their first-generation identity shaped and continues to shape their mentoring experience. They also mentioned they felt the need to disclose this identity to their mentors particularly “when there has been like growing pains”. They provided a very specific example of not understanding an aspect of academic life and how they felt many assumptions were made about what they did not know. A couple of early career participants felt “being open” or “having openness” as a mentor was valuable. One participant tries “being open and curious to other people's experiences”. They have realized “that my own experiences are just that, they're my own experiences”. Another participant mentioned their own character trait for liking to “learn from people that are doing different things and listening for those differences”. These person dependent aspects played a role as a mentoring practice.

### **Intersection of Situational-individual-Relational-Organizational [S-iR-O] Sphere of Practices**

### **[S-iR-O] Mentors, Committees, and Promotion (L) (ECF) \***

This category of practices was identified by both leaders and early career participants and relates to more general facets of mentoring for teaching that are less about the teaching and more about the backbone of the mentoring. This general mentoring backbone of practices describes some of the dimensions for why mentors are selected, the committees for mentoring, the reasons for mentoring and the organizational environment. These general mentoring facets align within all the spheres of practices for individuals and relationships, situational elements or events, and organizational requirements or pressures.

Firstly, it was suggested by leader participants that early career faculty need a diverse group of mentors and as one participant shared that “earlier the better to have a group of diverse people”. This speaks to the dimension of deliberate selection of mentors compared to organic relationship development. This leader participant shared as a possible reason for a diverse group “when you kind of like externally enforce mentors, or suggest mentors, if the marriage isn't good like that, sometimes people just kind of ghost the situation, and like they just don't go on from there. And I think actually, that's organic and natural, and that should be what happens when there isn't a good match, and so it's better to provide a more diverse group”. So, having the diverse group when the mentors are provided gives the early career faculty choices if some mentors are not a good match. A couple of early career participants described being explicit or strategic when selecting mentors and particularly for mentoring committees or promotion oversight committees. One early career participant gave the reason for being explicit for mentor selection for their committees as “my career is not the most important thing to me, it's my family and my life outside the hospital. So, it was important to me to have mentors that reflected that in their own lives”. Another early career participant felt they had a benefit of knowing people,

“folks that might serve me very well” in the department from a job prior to their faculty position. In the mentoring committee meeting of one participant I observed, it was also clear the mentors were specifically or strategically selected because of their area of expertise or prime focus and similarity or alignment with the early career mentee. The early career participant from the committee observation explained how one of her mentors is “really the education voice on that committee and has really helped me understand the, you know, where I fit. Where the work I want to do fits in with promotion in that formal setting, too”. This other dimension of promotion is discussed in coming paragraphs.

Another facet of this dimension was described by an early career participant as they felt they had “a lot of small ‘p’ political landscape to navigate” in the department and that “certain people are more attuned and like notice that political landscape more than others”. One early career participant described discovering this navigator function “while I chose her as a mentor for medical education, she ended up being a much more helpful kind of navigator through the politics of the department that were things that I was not aware of”. This participant saw this as “a super important role for people to have on their mentoring committee, or in a mentor right, because there's so much going on that no one ever tells you when you get hired”. A leader participant expressed a practice they use to help mentees navigate by the “pro-social aspects of like introductions, . . .inserting oneself [the mentor] . . .in a protective way, where, like any sort of negative impression would then be directed on me, and not the mentee”.

Relatedly to mentor selection is mentor development which was suggested as needed by a couple of leader participants. One leader acknowledged in relation to mentoring for teaching “this is like a practiced skill, you know, and not everybody knows the right recipe”. Another leader recommended “the mentors, such as they are, have some kind of development to be

mentors as opposed to just like random older guy”. This was an interesting, gendered response. Only one early career faculty participant mentioned having completed “both the mentorship training and the mentee training, and obviously that, you know, impacts my experience, right? And the way that I approach not only my mentoring, but the interactions that I have with my mentors”.

Secondly, the dimension of committees was frequently mentioned in relation to mentoring. This did not mean committees were the only place mentoring occurred. These formalized committees were most often called mentoring committees or promotion oversight committees. Trying to determine the differences between these committees was difficult as some participants used the names interchangeably or some departments appear to have operationalized them slightly differently. In leadership interviews I asked more specific questions to understand and delineate the organization of these committees within departments but still these committees seem somewhat opaque. Without trying to decide which committee is which it is still possible to see some practices these committees use at a high level. One early career participant referenced the “function of that committee that’s been really helpful is like they check in about, you know, do I have the things that I need to make me a successful, you know, assistant, you know, a successful faculty within the department”. They provided an example of not having adequate administrative support that this committee helped them navigate and rectify. They communicated about the committee function saying: “In my experience their role has been more meta like to be ‘are you getting what you need to move forward in these areas?’”. Another early career participant reflected that they “have had good mentoring. I would say I had support when needed, answers when asked, . . . within like my mentoring committee, not the oversight committee, but the mentoring committee”. Just to harken back to show some of the contrast and

confusion for which committee performs which function another early career participant exclaimed the “formal mentoring is my Promotions Committee, which I know is kind of formally called the Mentoring Committee”. So, this participant seems to have one committee for mentoring. When discussing promotion one early career participant said “yeah, promotion committee, more on top of that than my formal CHS track mentors”. This implies they have two different committees.

One early career participant observed “my mentoring committee did not talk about how to teach or what to teach. My mentoring committee more supported me in guiding me down appropriate teaching activities”. This participant would calibrate expectations by putting questions to their mentoring committee about activities they were considering such as “do you think it's something I should get involved with?” or to the promotion oversight committee “I could better spend my time with xyz?”. In this way they were looking for the committees to tell them “that represents what you should be doing” or in some cases “you need to refocus on a different direction”. These comments from this participant help to raise the question of what the function of committees should be in relation to mentoring for teaching.

Lastly, some participants highlighted the promotion dimension and focus on promotion in mentoring. One early career participant expressed “I feel like the goal of mentorship became promotion, . . . not that it didn't matter what I wanted to do, and how I wanted to grow and foster my career . . . there was always this specter of the promotion committee like looming over that whole process”. They went on to explain that this was “not necessarily what I thought of as mentorship. I thought, like guidance or advice, . . . more about the whole person and sort of helping people to flourish and thrive in their ways as opposed to making sure it looks good on paper”. Another early career participant thought her mentors and committees had “always

married those two together to do what you love, and you'll get promoted, find what makes you tick, and the rest will fall into place". This participant did highlight the need to "put the guard rails up, don't veer off the path" in terms of the promotion guidelines. As this participant was close to promotion at the time of the interview, they shared a reflection about the fear for promotion when they said, "what if I didn't fill the buckets enough, now I don't have enough, it worked out okay, but that was always the fear". Promotion clearly adds an interesting dimension to the practice of mentoring.

### **[S-iR-O] Direct Observation, Feedback, and Evaluation (L) (ECF) \***

The direct observation, feedback, and evaluation practice centers directly on mentoring for teaching. The dimensions for observation, feedback, and evaluation include how this may take place, when, what is being observed, ways to provide feedback and characteristics of feedback, who provides evaluations and why they are needed, and tools used during this practice.

Direct observation was more readily mentioned in the leadership interviews than the early career interviews. Only one early career participant really mentioned direct observation and feedback of their teaching. As one leader explained "someone's got to sit in on your teaching if you're an assistant professor on the tenure track, and it's got to happen over time, too, so you can demonstrate trend. So that is a requirement for promotion and tenure". According to this leader the department does not do anything more formally beyond that. So, it is assumed early career faculty on the clinical health sciences track in the department are not required to be observed and evaluated in their teaching. One leader said they approach observing early career faculty by saying "let me just sit and watch you and I'll take notes and write things down". Another leader expressed they believe "direct observation is really, really important" but they did not specify if

this was for clinical or classroom teaching. Potentially this requirement for direct observation is for classroom teaching and not clinical teaching. One early career participant mentioned there was an opportunity within the department to have their clinical teaching observed but they had not made use of it yet. One leader participant described the value of climate in the clinical environment and ensured they “always note and comment on” it during clinical teaching observations. Another leader highlighted the need to “respect their teaching, don’t interrupt” when observing early career faculty teaching. Particularly when talking about observation of classroom teaching one leader identified this need to “ask one of us to peer review one of your sessions, or sit in, or take a look at your slides” and seemed more about ensuring quality teaching than as a requirement for promotion. This leader, with medical school curriculum responsibilities, continued to say that it is “super valuable if they [faculty teaching] can actually get an honest appraisal” of their teaching. Another leader with medical school curriculum responsibilities emphasized: “I try to attend the lectures, and I take notes on what I see is happening”. This leader described how they approach these observations by taking “notes on the effectiveness of the lecture. Oftentimes I’ll make notes about the pace, the level of content, the difficulty level, whether or not, you know I felt it kind of hit that M1 [first year medical student] level, or it was a little bit too much, a little, you know, not enough”. In these observations this leader seemed well versed in pedagogical practice by noting “whether or not I felt that the learning objectives were being met, whether or not I felt it was a well delivered lecture, and then, if I notice anything that I feel that the lecturer could improve upon, I make a note of it”.

As follow up to these mentoring practices of direct observation, leaders and some early career participants described feedback and in some cases evaluations. One leader defined their approach in clinical teaching as “it always is that, you know, mindful way I have to develop that

culture of reflection and feedback”. Another leader mentioned the significance of “getting their [early career faculty member] opinion out front” before providing their own feedback. When providing feedback one leader depicted it as “keeping it honed in on the data, or like your experience” and how they are “keeping it focused” on the observation which seemed in contrast to generalizations. One leader provided very detailed examples of feedback they will provide after observing teaching in formal medical student classes. Another leader explained their department has peer feedback forms that include “reinforcing ‘were these done’ and a little bit of detail, and then one or two things that they did well and keep doing. Then one or two things to think about trying differently or trying out in the future, and then some, maybe an idea of resource or how to do that”. This structured approach to observation and feedback was also described by an early career participant as a “consistent tool across all the teachers” who were mentoring them. An early career participant commented that “someone who makes time to come to a one-hour lecture to provide specific feedback is not an easy thing to do. So, availability and accessibility” to that opportunity is impactful. This early career participant also shared how stark the learning experience was when they got some “very negative feedback from someone, assumed I should know better”. One of the curriculum leaders acknowledged they “never want to prescribe anything to anybody even though I do think that there are certain, you know, best practices that I think are important that most people follow”.

Some of the feedback related to teaching is delivered more formally in evaluations, often written. The feedback so far has been peer feedback, but learners are also asked to provide feedback on faculty teaching. Some leaders use this feedback from peer and learner evaluations to assist with faculty teaching development as a part of mentoring. Some leaders stated they get teaching evaluations from learners when mentoring for teaching and one leader felt as “if I’m

backed up on the evaluations. It's really helpful". Another curriculum leader outlined how "every year I send a letter [to teaching faculty] in which I reviewed all the evaluations, and then I give specific suggestions on . . . changes in a certain area that might make things go better". One early career participant shared "if I had gotten some evaluations back and I was like, 'oh, you know, like what's going on here? I need to troubleshoot this with someone' like I feel like I could bring it to my, you know, to [name's] mentoring group". I was able to observe this mentoring group referenced and can see how this would be a good forum to discuss teaching evaluations.

### **[S-iR-O] Facilitating Pedagogical Growth (L) (ECF) \***

It was not surprising to see a practice category about facilitating pedagogical growth emerge from the data. Ultimately, mentoring for teaching aspires to facilitate teaching improvement on some level. What was surprising was that many more leaders commented on this practice than early career participants. The dimensions of this practice category include need for growth, motivation, degree of formality, content related, evolution, type, location, structure, and learners. As perhaps expected, the facilitating pedagogical growth crosses all practice spheres of S-iR-O. Importantly, this evolution of growth could be informed by direct observation, feedback, and evaluation practices. I chose to keep these as two separate practices because observation, feedback, and evaluation are unique related practices, seemingly very structured in the way participants spoke about them. I wanted to ensure they were highlighted as a separate practice to this more general growth practice.

One leader participant has a type of muscle memory for teaching, a "standard way I kind of envision how teaching could happen in a way that can be effective" that they share with mentees for growth. They defined a group of questions for getting back to the basics with early

career faculty like “what are the goals?”, “what are the resources?”, “what do you hope are the outcomes?”, and “how are you going to teach that?”. They also declared that the department has a way of identifying new early career faculty with an interest in teaching so they can connect them with a mentor and opportunities. Another leader recognized “junior faculty often have a lot of enthusiasm for teaching which is good, and it's why they're here, . . . They want to be in that teaching environment, but they often lack the practical skills to effectively teach, and they may not recognize that they lack those skills”. Therefore, to some degree early career faculty do not know what they do not know in regard to teaching skills. One leader highlighted this by sharing the adage often used in academic medicine that “it's see one, do one, teach one. It's not that formal, you just kind of get it along the way” to develop teaching skills. The motivation or desire dimension for this practice was apparent to leaders. One curriculum leader exclaimed that “I have found that many faculty that teach in the Forward curriculum [for medical students], the MAMA funding is not huge, so I feel like people are doing it because they want to”. They went on to explain there needs to be “this intrinsic desire to be involved in medical education, because, you know, you're taking clinicians out of clinic. You're taking basic scientists out of their research labs”. They suggested scaffolding and breaking down the steps as effective practices of facilitating teaching growth during mentoring.

A couple of participants mentioned the need to help faculty define what the learners need to learn and advise them to be specific. One leader said “it's okay if they learn just a few things” which is advice they share with early career teachers who have a tendency to want to teach learners too much at one time. This idea of normalizing teaching growth was suggested by another leader who said, “talk about the developmental process, and recognizing that it is a skill set, and it takes time”. They went on to say, “it takes like mistakes and errors, and things not

being perfect are all normal, and that's just so it how it is". They recommended "normalizing some of the struggle and challenges of learning as a teacher" to aid with development. Another curriculum leader was quite emphatic that if someone is not effective at teaching, they "try to remediate that situation". Eventually, though, they said they if they don't improve, they "just won't let them do it [teach] anymore". An interesting comment was shared by one curriculum leader about the "startup cost to kind of getting to give a lecture, specifically a lecture to where it's going to be most effective for the students, to where it's going to be well delivered". This recognition of the costs was something they tried to facilitate with faculty mentees and their teaching.

### **[S-iR-O] Ensuring Access to Faculty Development and Resources (L)**

This practice category is similar or works with the facilitating pedagogical growth practice category as to facilitate growth, resources are often needed. Ensuring access to faculty development and resources was only mentioned by leaders. Some of the leaders suggested types of resources, access to training and teaching curriculum. These loosely form the dimensions of this practice category. Most commonly leader participants proposed opportunities to improve teaching skills, as this leader did "by taking little courses, sessions, observing somebody else doing teaching. I think everybody comes from a background that they've done a little bit. However, have they had some formal education in that [teaching]". Another participant identified the need for "some sort of early career curriculum for medical teaching, it would be great. That would be a great thing to have. These are best practices, you know, the bullet points". One leader described the work they do to provide faculty development for faculty teaching in their course. They said, "every year I pick a handful of lectures that I feel were the least effective

in the prior offering of the course, and I try to work with those professors . . . to kind of give them some pointers to kind of provide some guidance as to how they could potentially make their lectures a bit more effective”. This participant indicated feedback from a student who “feels that there should be instructional designers that are at the [institution] that actually it's part of their job to work with faculty to basically sit with faculty and finesse their lectures”. Another leader described departmental faculty development attempts “for some of our resident assessments we've done, we try to standardize our faculty around those” using checklists of milestones, videos and deliberate practice simulation. A couple of leaders referenced other dedicated programs in their departments or that used to exist at the school level for developing teaching. Another participant said they “encourage people to go to our society meetings”, these national conferences to access teaching training in their specialty area. A quote from one leader seemed to sum up this practice succinctly when they said, “almost nobody has gotten formal instruction in any of those things. And so, it's identifying those gaps, and then leading people, or suggesting to people where or how they might be able to address those gaps”.

### **Practices that Militate Against Flourishing**

Typically, mentors aspire to improve their mentees teaching and professional development during career progression. This is not always the outcome and the road to get there is not always positive for the mentees. At times mentoring practices militate against flourishing and negatively impact the early career faculty member. The following eight practice categories are not helpful for flourishing according to leaders and early career faculty. Importantly, most of the early career faculty interviewed are very satisfied with their mentoring experiences to date. One early career participant claimed, “I would say that my experience is overall really pretty

good”. Another said they “don't have a lot of negatives” and one more said they “haven't had any other negative experiences”. The following list and descriptions of practice categories will highlight the negative practices. There are six militating practice categories that are mirroring or reflective of contributing to flourishing practice categories and are marked with an asterisk ‘\*’.

### **Situational [S] Sphere of Practices**

#### **[S] Teaching Difficulty Impact (L) (ECF)**

A unique practice category, teaching difficulty impact, was only mentioned by participants with surgical sub-specialty training and responsibilities. It is possible this practice category is most salient to procedural specialties which could explain why only the surgical physician faculty made mention of this difficulty. One leader participant shared “I still think teaching in the operating room is incredibly difficult, in any way other than you know the old ‘see one, do one, teach one’”. A part of the reason for the difficulty seems highlighted as this participant went on to say that “when you've just finished residency, you're not even sure how to do it. You're supposed to be teaching other people how to do it. That's tough”. In a similar vein, an early career participant, also in a surgical sub-specialty, explained in detail the difficulty of teaching in the operating room (OR). The early days after residency they were “on that learning curve of things, and for me it in the beginning of my career as a surgeon anytime I made a technical error that resulted in patient harm, I took it very hard”. They described the learning curve and the acceptance “that these things are going to just happen, and I don't take them as personally anymore”. This leads the participant then to feel “more of an ability to say, even though this is my patient, and they met me, and they're trusting me to do their operation. I feel confident enough in my ability to supervise you and to talk you through what's supposed to

happen”. They also described when things go wrong, “if a complication happens, I don't then say, like, how dare you, you have caused a complication on my patient?”. They described “letting go has really that evolution of how complications happen, and why they happen, whereas early on your career, every single time it happens, you say that must have been some failure of mine, . . . to now, where I say, there are going to be some complications that happen, no matter what” this then leads to developing skills for observing someone else go through this same process in the teaching. This participant stated, “there's not like a course for faculty to learn how to do this”. This participant labeled this as the “concept of entrustment or entrust-ability in the operating room. . . . process of transferring full responsibility and autonomy of the things that you are doing to the patient, from yourself to the trainee”. This is a long process they described that happens over many years of training. The complexity of this teaching situation will undoubtedly impact mentoring for teaching within this sub-specialty. In the interviews the focus was on the difficulty of the teaching and not the mentoring. Unfortunately, there was not time for delving deeper during these interviews.

### **Intersection of Situational-individual-Relational [S-iR] Sphere of Practices**

#### **[S-iR] Unhelpful, Unactionable Feedback (L) (ECF) \***

This practice category for unhelpful, unactionable feedback somewhat mirrors the positive practice category for direct observation, feedback, and evaluation. As shown in the contributing to flourishing practice category, getting feedback is helpful for developing teaching skills and expertise. There are, however, qualities or dimensions to the feedback that were identified by participants that do not contribute to flourishing in teaching. Another dimension of

the feedback relates to the willingness of the receiver to hear feedback or to know what to do with feedback, for example in evaluations.

First, the specificity of feedback provided was commented on by both leaders and early career faculty participants. Faculty getting generic feedback on their teaching was discussed by this leader when they stated: “What they get back is a very mealy-mouthed kind of generically positive thing without really any specific action items”. They suggested mentors “call out the good things, but also make sure that it's like ‘you did this great, but at this one point you lost them, and don't think you realized that’. I think that is helpful. So, just falsely positive, mealy mouth things are not useful”. An early career participant contrasted how a mentor is “likely more engaged and invested in your development than just gives their vague feedback”. Another early career participant explained how they “observed where there's no actionable feedback and suggestions just ‘going great, keep doing’ or ‘you're not doing things, so do them’”. They felt feedback could incorporate or lead to setting smart goals” but saying “‘better start hitting benchmarks’ without a plan” would be unlikely to lead to change.

Secondly, rigidity and directness of feedback when mentoring may not lead to positive outcomes in teaching either. One leader shared that “recognizing when to kind of give them just a little bit and help them move forward versus when it isn't” is important to keep in mind. This participant claimed, “sometimes it does make sense to be ‘this is what I found has worked the best’” but then they qualified this as “not being too rigid about ‘this is how you have to do the methodology’ in the moment”. Another leader said it does not help if you are “putting one style as a mentor a little bit more on the mentee when it comes to specifically teaching situations” as there is not just one right way to do things. Being a little less direct and “kind of softening it with that kind of ‘here's some of my advice, but this is yours’. So that definitely seems to land better”

was explained by one leader. They suggested “even with giving those like ‘I think you should do this’ it could be, ‘I wondered’, like, ‘I noticed this’, or ‘I felt this’, or ‘I saw this’” as alternatives. This leader recommended to “do kind of this balanced approach . . . like, ‘how's it going?’, ‘what's one thing you did well you should keep doing’ and then ‘what's one thing you would change?’”. They also felt not promoting self-reflection first is less useful as “promoting that reflection . . . they'll think about it a little deeper, and you can also start to get into the why, instead of the just like the how” but they caution to be aware of any “power differential”. Another leader described “negative experiences that I've had are when people are not willing to hear any feedback, when they don't want any” as they are being mentoring for their teaching.

#### **[S-iR] Heavy Promotion Focus (L) (ECF) \***

A heavy promotion focus practice during mentoring was seen as militating against flourishing in teaching. The dimensions of this practice centered on committees, time to talk about promotion, the effect, and details for promotion. One leader felt the committees were too focused on promotion where they were “parsing out especially for very young faculty, which is kind of ridiculous like ‘oh, well, how are they going to get a regional reputation?’, ‘how are they going to do this and that’ as opposed to like, ‘how are they going to find a mix of professional activities that they find fulfilling, and that makes them want to come to work’”. This sentiment was echoed by an early career participant who has “a knee-jerk reaction against something that's solely going to help me get promoted”. They went on to say that promotion is not what motivates them. They felt “85% [of mentoring] was about promotion” and this should only be “about promotion like fifteen percent”. They did acknowledge this is dependent on the early career faculty member’s perspective. To them it was “reductive. . .taking the work that I’m doing,

which has a lot of meaning to me, and then putting it through this cheese grater of like ‘does this count for anything?’”. They felt the title of the committee as “the promotion oversight committee” was “much more descriptive of what actually happened in those meetings”. Another early career participant felt similar as “enjoying what I do is more important to me than making sure I’m promoted in ten years”. Another early career participant described the negatives of not “understanding the concepts of promotion”. They described tension in mentoring on some of the details or requirements such as hearing “well, this national stuff is nice to know, but we really wanted to see what your development was on this campus level”. They characterized this “as a bait and switch” and explained a similar experience regarding publications needed for promotion according to the mentoring committee. They proposed some of this tension may have been related to differing track expectations with having a tenured professor on their committee when they were on the clinical health sciences track. It seems too heavy of a focus on promotion in mentoring does not encourage flourishing as an early career faculty member for my participants. This practice somewhat reflects or mirrors the negative side of the practice category of mentors, committees, and promotion from the contributing to flourishing practices.

### **[S-iR] Problematic Communication, Contact and Connection (L) (ECF) \***

This practice category combined a few militating issues participants identified. The dimensions of this practice included the effect of tone of voice, no regular contact, no time for connection, loss of trust and no peer modeling. A couple of early career participants explained situations where tone of voice of the mentor, either their mentor or someone they were observing, had effect, or conveyed something beyond the words. One of these participants observed a mentor’s “tone changes noticeably” when working with “someone more junior to

her". They described this change was "in a bad way, this weird way" and agreed that it was condescending. Another participant experienced a change of voice tone after saying no to an opportunity the mentor had offered. They described this as "an abrupt tone of 'okay? Well, I'll find somebody else then".

Not having regular contact or scheduling regular check-ins with mentors was seen as militating against flourishing. One leader participant felt there were times when contacting a mentee was "not today's priority, seen as optional today". An early career participant felt not scheduling regular check-in meetings with mentors diminished their sense of their own accountability. They detailed how the pandemic had impacted availability for regular meetings. Another career participant expressed the bi-directional nature of not reaching out where the mentor "hasn't reached out to me much since we first started working together" but they are "not reaching to him as much anymore" either. This raises the question of responsibility as well as accountability for flourishing. This participant also characterized "there is not time or space in these formal relationships for that [relationship] to blossom". They contrasted this "time crunch, anytime I step into in the academic setting or academic relationship, feels like there's pressure, time pressure" with the "spaciousness" in mentoring relationships from a teacher training program. A leader participant reflected on their early career experience sharing this "feeling that I was wedged in among other things". Another leader talked about "competing priorities and time is one part of it". They considered it was similar for all "whether it's mentors, mentees like everybody's just got so much that's going on". One leader felt "not being available. I mean, ultimately, really, it's just not being available" was a negative practice. An early career participant hinted at the potential for loss of trust if they felt mentors were not keeping what they said confidential. Lastly, a leader shared an interesting perspective that there is an absence of

peer mentoring observations that they “don’t get to watch other people mentoring”. Again, this is another example of a practiced that mirrors the negative aspects identified in the list of flourishing practices identified by participants.

### **[S-iR] Encouraging Work That’s Not Who They Are (L) (ECF) \***

The name for this practice category, encouraging work that’s not who they are was constructed from participant quotes. Early career participants shared that when mentors encouraged them to do work that does not align with their values or interest, the work was not meaningful to them, and they felt the mentor did not know who they are. One early career participant described this as “kind of forcing on you, or really encouraging you to take on roles or take on projects that really do not spark joy, either because it benefits them [mentor], or looks good on your CV for promotion”. A leader participant described something similar that sounded a lot like academic cloning where a mentor “just tries to make you mimic their path”. They felt the mentor was “trying to form everyone in their own image rather than trying to create, you know, trying to help that person, figure out where they want to be and get to that place”. An early career participant felt it is “easy in medicine and in surgery to say there is this path to success where I have to be the triple threat. . . successful as a teacher, a clinician, a researcher, need to go down this pathway, get these grants, do this for my teaching, do this for my clinical, going to be just like the people before me, therefore, successful”. This participant feels things have changed and there are now many ways success can look today. They suggest the importance of “doing that values analysis work myself” which may act as protection from being swayed by academic cloning or achieving someone else’s idea of a triple threat. Another early career participant felt

“being undifferentiated” can make you more susceptible to cloning when working with more senior mentors.

An early career participant conveyed an experience that really explored how not knowing who the mentee is has a negative effect. The participant shared the emphatic declaration of a mentor that was “going to find the job that I think that you should do”. In this experience the participant felt this was “dismissive of other parts of my life that were very important to me”. They explained how challenging this was, this “clash of understanding of those values of what things were important”. Again, the participant reiterated the importance of “really understanding what success means to the other person, and their values is super important, and not imposing too much of yourself on that mentee just being able to support”. Another early career participant shared “not really understanding me, then just giving advice, you should do this and do this and do this” is not helpful.

### **individual-Relational [iR] Sphere of Practices**

#### **[iR] Person dependent (L) \***

Person dependent characteristics are the prime focus of this practice category. Not surprisingly these individual traits can negatively impact mentoring experiences as they can positively. Thus, this practice category mirrors the person dependent practice category in the list of practices that contribute to flourishing. The dimensions of this practice category include the “tricky tightrope”, generational differences, copy and paste mindset, forgetting what is foundational, being the first, and inflexibility. The “tricky tightrope” was described by a leader participant where people who are generally good at teaching are not the people who show up for faculty development activities. This participant characterized this tricky tightrope as “preaching

to the choir, that the people who are already pretty good at this [teaching] are the ones that show up and are interested in it. The ones who need the help and need the instruction, either don't come or are disengaged". This intimated individual approaches and differences that impact mentoring for teaching. Generational differences and age differentials were identified by one leader as a dimension of this mentoring practice militating against flourishing in teaching.

Another leader described this mindset where someone "really didn't come prepared and reflect on the learner just kind of used comments that they had previously, from the previous evaluation, and just kind of copy and pasted it in. So didn't really take time to try to see how the learner could be helped". This copy and paste mindset is unlikely to help early career faculty flourish in their teaching. Similarly, forgetting foundational knowledge was recognized by another leader as not helpful. They shared that "sometimes when clinicians are teaching their content area of expertise, they have completely forgotten what is foundational and what is not". This participant believes "they lose the ability to scaffold the learning" and felt "a lot of the content experts, they don't remember what it's like to be a first-year medical student, and they don't remember what they did and didn't know". Another leader described their experience of being the "first woman in the whole department, the first person with my specific fellowship training. I mean, it really was just trying to figure it out. . . seeking mentors outside of my department and specifically female surgeons twenty years ahead of me" to serve as mentors. Not having mentorship from someone who has similar individual characteristics could militate against flourishing. The last dimension for this practice category is inflexibility. One leader explained the difficulty when someone "kind of came in with a set idea and wasn't open to other ideas". They described how "being just dominant, that they knew exactly what the problem was, how to address it. Didn't listen to anybody else" was problematic.

## **Intersection of individual-Relational-Organizational [iR-O] Sphere of Practices**

### **[iR-O] Who's Facilitating Pedagogical Growth (L) (ECF) \***

An important practice category, who's facilitating pedagogical growth speaks to the limited formal teacher training participants identified. This practice category mirrors the facilitating pedagogical practice category that contributes to flourishing in teaching. One leader participant shared "I feel like I've never had any formal education, or really mentoring on teaching residents or surgical teaching, or any of that". Another leader said, "I think everybody comes from a background that they've done a little bit. However, have they had some formal education in that?". One leader declared "I myself don't have as much teaching about teaching". This participant contrasted the experience of K-12 teachers in their family and what they do for people teaching in their course where they "watch a couple of lectures that someone gives but like these people [trained teachers] who have a whole, you know, whole semesters of direct observation". Another leader recognized "almost nobody in medicine gets formal education in education, in pedagogy". An interesting perspective from a leader accepting "nobody receives any official training; you know you don't have to go to undergraduate school for education in order to teach at the higher levels. You know you have to do it for grade school and high school, but you know, at the college level and beyond there is no requirement that anybody receives any official education training". Some of the early career participants have more formal training or experience but not undergraduate degrees in education. One early career participant was a high school teacher prior to completing medical school.

In addition to limited teacher training one early career participant described "how to be an effective teacher that did not come from the mentoring committee, but nor did I seek it out".

Another early career participant explained they “definitely receive more mentoring in like research or other aspects of my career than I do in teaching. Not that I couldn't get more, I think, if I explicitly ask for it”. They also reflected that they “don't really, I don't actually have a person I go to, who I would consider like my mentor in regard to how I teach, if that makes sense?”.

### **Intersection of Situational-individual-Relational-Organizational [S-iR-O] Sphere of Practices**

#### **[S-iR-O] Competition (L) (ECF)**

This practice category had two distinct dimensions. The first is the dimension of an individual mentor practice for creating competition between mentees. An early career participant shared this experience of a mentor who “used to sort of put people in competition with each other, I feel like he thought that was motivating, but I didn't find it so”. This participant also questioned whether this competition “is in the water”. They explained some of the competition for clinical teaching such as “there are evaluations that learners fill out about their teachers that can determine how much time you have teaching on the wards, there is competition, and if you aren't the top whatever then you're not going to be teaching at the bedside”. They contrasted this situation with experiences they have co-teaching where they do not feel that competition.

The second dimension is the organizational competition between the academic missions that may militate against flourishing in teaching. Some leaders described the differing angles of this dimension. One leader revealed “I think that you know the elephant in the room is the clinical burden”. They described the challenge of “how to manage all that and get appropriate support and comfort. So, you actually have time to do some of the development of your teaching skills, or create curricula, or whatever is very, very, very difficult! So that's probably by far and

away the biggest challenge”. Another leader explained the concept to “pay lip service to ‘you have to do teaching’”. This leader characterized this as an institutional problem and not just in the school or department. They claimed, “you have to do this [teaching] because you have to do this, it's not because it's important to us [the organization]” and maintained “you are financially disincentivized for teaching”. Their perspective was “you tell people what you value if you say I’m paying less for this than this”. Another leader felt there is “discounting of the importance of education, as like part of an academic career”. They pondered “it's an academic institution, everybody is basically equal as teachers. I don't think that that's true.”. They also shared an exchange about the time spent teaching where “it's viewed as like time off”. The leader was told “you gotta do more on service, because you have so much time off [teaching]”. This leader hypothesized the tension with teaching was due to competition with “things that bring in some money”. Another point of note this leader raised was “people who do a lot of the bulk of the medical education is more common amongst women. And so, I think, by discounting it, it's furthering some of this like structural misogyny”. Early career participants did not feel this pressure or sense of competition from their mentoring committees but somewhat from the department. One early career participant explained they “want protected time to do something that doesn't bring in money, how do you square that?”. Another early career participant explained it was less about not valuing teaching and more “I think there are situations where you know you can just be a really good teacher and not publish anything. . . . I could, you know, get stellar teaching evaluations but if I wasn't doing kind of some more stuff around that, then people would sort of question that”. This “more stuff” is generally scholarship and publishing. This participant concluded by saying “I think it's valued, you know, like there's just sort of this baseline expectation that you're going to be, you know, a generally good teacher”. Although these

comments are not related to direct mentoring practices it likely the underlying tension and competition has some impact on advice given to or opportunities taken by early career faculty.

This concludes my findings for the S-iR-O grounded theory model of mentoring practices for flourishing in teaching with eighteen contributing to and eight militating against practice categories. The model organizes the practice categories into three spheres of practices including situational, individual-relational, and organizational. In some cases, practice categories do not easily fit within one sphere of practice and straddle two or three spheres.

## **Chapter 5: Discussion**

This study identified the mentoring practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers. My research led to the development of the S-iR-O grounded theory of mentoring practices for flourishing in teaching. This theory, grounded in the data from interviews, observations, and document reviews brings attention to the situational, individual-relational, and organizational mentoring practices operating in academic medicine that support or undermine early career faculty in their teaching. In conducting a grounded theory study for mentoring practices, I was intentional in wanting to contribute to theory building in the mentorship literature in academic medicine. I wanted to highlight and go beyond mentoring practices for teaching that have been reported generically in commentary articles and literature reviews in academic medicine. These literature reviews are based upon studies that examined mentoring outside the field of academic medicine or with questionable rigor and explanations of the populations studied. Importantly, I sought to amplify the voices of early career faculty and leaders in their experience of mentoring practices for teaching. In this chapter, I will discuss the significance of the findings, the contribution to the literature, implications for practice, and the limitations of my study.

### **Significance of Findings**

In this study I identified eighteen mentoring practices that contribute to and eight mentoring practices that militate against flourishing in teaching in academic medicine (see Table 3: S-iR-O Grounded Theory Model – List of Practice Categories). In the S-iR-O grounded theory, I represented how these practices interacted and overlapped in spheres of mentoring practices. The literature in academic medicine suggests some of the same mentoring practices

contributing to flourishing identified in this study and far fewer mentoring practices that militate against flourishing. The academic medicine literature does not explicitly make mention of the situational, individual, relational, and organizational spheres or facets of mentoring and how they interrelate.

Literature in academic medicine has reported positive mentoring practices related to teaching. Farrell et al. (2004) discussed the general benefit of having a mentor in this literature commentary and at least seven mentoring practices also identified in the S-iR-O grounded theory. These practices identified include: Being self-reflective to determine needs, being accessible, asking thought provoking questions, role modeling, having a willingness for collaboration, providing sponsorship and structured feedback (Farrell et al., 2004). Similar mentoring practices identified in the S-iR-O grounded theory model were: Modeling behavior; encouraging self-reflection; time, access, and availability; communication, contact, and connection; opportunities, collaboration, sponsorship, and advocacy; and direct observation, feedback, and evaluation. My understanding is that Farrell et al. (2004) is more focused on how to find mentorship, the traits of good mentors, and the desired outcome of the mentoring. The onus for having an effective mentoring relationship is stated as relying on the mentee by Farrell et al. (2004), which did not seem supported from either leaders or early career participants in the S-iR-O model. Farrell et al. (2004) reported practices not observed in the S-iR-O grounded theory which include “being tolerant of learners, motivational” (p. 1347) mentors and topics for discussion such as goal setting, time management, and understanding career choices. Graziano et al. (2019) reported role modeling and providing feedback, as well as formal and informal mentoring practices. In addition, Graziano et al. (2019) included negative practices such as

mentoring required time and commitment from all involved. These practices were all supported by the S-iR-O grounded theory.

Levinson et al. (1991) suggested the importance of peer review of teaching and limits to training opportunities for developing teaching capabilities. These practices were identified in the S-iR-O grounded theory. Roberts et al. (2014) recommended mentoring practices such as investing in professional development as an educator, mentor identified teaching opportunities, capacity to act as a sounding board and recommendations for observing someone teaching and being observed. These practices were all advocated in the S-iR-O grounded theory. For early career faculty, Chang et al. (2021) proposed using an individual development plan and cultivating what can bring joy as mentoring practices. Leader participants in the S-iR-O study made direct comments suggesting mentoring practices that use a development plan and asking early career faculty “what would bring them joy”. Several mentoring practices were similarly suggested by Castiglioni et al. (2013) and the S-iR-O grounded theory: To encourage self-reflection, dedicated time for listening, skilled communication, feedback that is reinforcing and corrective. In addition, Castiglioni et al. (2013) suggested mentee practices for honesty about vision for success, effective communication skills, managing the relationship, meeting agendas, scheduled feedback and the importance of follow through. These practices were supported by the S-iR-O grounded theory.

Literature outside of academic medicine as reported by Tähtinen et al. (2012) related to the teaching of marketing, clearly identified and organized practices in the spheres of organizational, individual, and relational but did not include the situational sphere included in the S-iR-O grounded theory. The practices contributing to flourishing reported in Tähtinen et al. (2012) included training mentors, the need for teacher training, socialized communication,

mastering emotions, feedback, and skills to handle feedback that were also observed in the S-iR-O grounded theory. Tähtinen et al. (2012) reported negative practices and influences such as the lack of faculty with pedagogical qualifications, time pressures and the fear of cloning that were also included in the S-iR-O grounded theory. The S-iR-O grounded theory upheld those practices referenced and provided an illuminating organizing framework of practice spheres that were similar in literature from the field of marketing. Other literature outside of academic medicine recognized similar mentoring practices in the S-iR-O theory such as informal mentoring practices and pairing the novice teacher with someone more experienced (Thompson, 2006). Kolman et al. (2017) identified learner or mentee centered mentoring and modeling practices that were also mentioned by participants in this S-iR-O grounded theory study.

A selection of interesting and salient mentoring practices observed in the S-iR-O study yet not seen in the literature includes the phases for before, during, and after mentoring or teaching which helps with thinking discreetly about the different parts of these experiences. Other mentoring practices such as understanding who early career faculty are, maintaining trust and how saying “no” to opportunities without consequences is critical to building the mentoring relationship. Important to teacher development were mentoring practices for facilitating pedagogical growth and ensuring access to faculty development and resources. The S-iR-O grounded theory added mentoring practices that militate against flourishing in teaching not often seen in the literature. For example, the S-iR-O grounded theory identified the militating against flourishing mentoring practice of competition. This practice could include competition that is deliberately provoked by a mentor between mentees or the equally detracting organizational practice of competition among the missions of academic medicine.

Caffarella and Zinn (1999) suggest a mirrored reflection occurs on either side of the positive and negative observations. The S-iR-O grounded theory identified six of these mentoring practices that contribute to flourishing and are reflected in practices that militate against flourishing. The mentoring practice, who is facilitating pedagogical growth, that militates against flourishing of early career faculty was reflected in the practice facilitating pedagogical growth that contributes to flourishing in teaching. Person dependent mentoring practices were identified that can contribute to or militate against flourishing in teaching depending on the characteristics. For example, mentoring practices may change for early career faculty who self-identify they were a first-generation college student.

### **Contributions to the Literature**

The S-iR-O grounded theory makes three major contributions to the academic medicine literature. First, it categorizes the practices within spheres to assist with more comprehensively thinking about mentoring as a conglomeration of activities at varying levels instead of just in relation to individuals in a relationship or from one perspective in the relationship. Similar, to thinking and researching about childhood growth and development, patient health or disease progression, a multitude of facets are considered to provide a more complete understanding. Environmental or organizational components are often introduced to explain lack of child growth or improvement in patient health. The individuals and relational aspects of parents, family members or patients and providers are often explored to garner clearer impacts on outcomes. As in the past for childhood development and patient care, defining and describing these interactions and experiences opened the field to new areas to examine and explore in research. This S-iR-O grounded theory for mentoring is a whole new area of research for exploration in academic medicine.

Secondly, the S-iR-O grounded theory simplistically describes the complexity of mentoring practices. Often models and frameworks are complex which make them more difficult to understand and apply. Observed in the data were the three spheres of practice that are interactional and overlapping. Not only were these spheres grounded in the data, but they are also grounded in the context, components, and environment of mentoring. The context is the situational and relational actions of mentors and mentees as they operate with organizations. Possibly over time and with additional studies, more mentoring practices for teaching could be described, embedded, or located within the S-iR-O grounded theory.

The S-iR-O grounded theory explains the spherical or multidirectional context of mentoring. Metaphorically, this can be thought of as theater in the round from Shakespearean days and the Globe Theater. Mentoring is acting and being acted upon within these practice spheres in the S-iR-O grounded theory. The S-iR-O grounded theory enables viewing mentoring for teaching in the round or in a spherical sense. This creates more of a complete picture of mentoring that has been unavailable in academic medicine, particularly related to teaching. This study contributed this first attempt that I am aware of for model building of mentoring practices in academic medicine by drawing on qualitative methods. This grounded theory needs further exploration in a larger, similar study with early career faculty and leaders within the same department and across different departments, specialties, and sub-specialties to continue to explore experiences of mentoring practices for teaching. The grounded theory methods of this study could be used at different institutions to see if any of the eighteen contributing and eight militating mentoring practices are salient.

Thirdly, the practices introduced by the S-iR-O go beyond thinking of mentoring as this wonderful experience with positive outcomes for all. The practices participants voiced showed

the time, energy and effort required for mentoring. Participants described a tone of voice, a response, advice, or actions that they did not consider useful or that militated against flourishing. Early career faculty participants and leaders recognized mentoring practices that militated against flourishing when feedback was not actionable, or advice was not aligned with who they are. Critiquing these practices of their mentors should not be viewed as a lack of appreciation, akin to the adage of biting the hand that feeds you. There was much gratitude expressed for mentoring and mentors in the comments from participants in the study. Participants identified pain points and stressors that contribute to not getting the most out of mentoring for teaching and suggested areas for improvement. Heavy promotion focus mentoring practices may be robbing early career faculty of finding and experiencing joy because they are being encouraged to do work that contributes to promotion but is not who they are and helping with finding joy in their work.

Many of the practice categories identified in this study speak to a sense of commitment to the relationship by “showing up”, making frequent contact as or with the mentor or mentee. Any kind of isolation makes building a rapport and relationship more difficult. There is some expectation for certain behaviors like trust in and advice from mentors on the part of the early career mentees in the study. There is accountability for both mentors and mentees built into or because of some practices. Knowing that there is going to be a meeting or some expectation for contact fosters accountability in the individuals and develops relationships. Commitment and consistency also led to an expression of trust in the mentoring experiences, advice provided and the relationships themselves.

The major challenge in mentoring indicated in the study was where the relationship was carefully contrived in terms of the commitment. In contrast where the relationships were more

organic – built out of mutual interest or working together – the commitment seemed stronger at least from the early career faculty perspective. I was not able to intentionally interview the mentors of early career faculty. An ideal future study would be to interview mentors and mentees within the same relationship to understand similarities and differences. Observing the mentoring committee in action was helpful for examining the operationalizing of this formal mentoring practice. There was an interesting contrast with the group mentoring observation which seemed to promote contributions from everyone regardless of the topic. In the mentoring committee observation, mentors had very specific areas of activities they would comment on. It is not possible to say if this was unique to this mentoring committee or common practice. This would be interesting to explore further with observing more mentoring committees.

Future research could expand on the practices in the S-iR-O grounded theory, adding more nuance and depth. Some of the mentoring practices suggested by Farrell et al. (2004), Roberts et al. (2014) or Castiglioni et al. (2013) could lead to question prompts in qualitative interviews to expand on the grounded theory. The difficulty of teaching in procedural specialties like surgery begs further exploration and particularly how mentoring practices for teaching could support the development of entrustment. The nuance of surgical teaching was fascinating when described in interviews. As the participants talked about their early career teaching challenges and ongoing concerns to be a better teacher in the operating room, I was drawn to this question of how identifying specific mentoring practices could have gotten these faculty more comfortable in their “own two feet” sooner. An opportunity to observe, interview, and contribute to the understanding of the “letting go” concept described by participants and how faculty could be mentored toward this end would be a worthwhile pursuit if it can alleviate some of the concerns faculty expressed.

The S-iR-O grounded theory study attempted to respond to the claims made by Sambunjak et al. (2009) that “the largest gap in the existing body of research relates to the limited depth in which the phenomenon of mentoring in academic medicine has been explored”. The S-iR-O grounded theory study attempted to delve deeper into the mentoring practices for teaching in academic medicine.

### **Implications for Practice**

The logical next step to advance the S-iR-O grounded theory is to strategically incorporate it into an educational intervention or faculty development activity for mentors and mentees in academic medicine. The S-iR-O grounded theory is pocket sized or small enough to easily recall and yet explains this very complex experience from multiple directions. There are two areas of faculty development where the model would integrate well. Firstly, incorporating the model into existing mentor and mentee training and faculty development. Using the model as an organizing framework for mentoring practices in mentorship training could help with big picture thinking. In the different types of mentor and mentee trainings I have experienced, developed, and delivered there has not been a theory or framework. There were mentoring competencies used to structure the trainings I am most familiar with. It would be valuable to see how these competencies align with the S-iR-O grounded theory. Much of the existing mentorship training is focused on research mentoring despite the need for all faculty to teach. The resources promoted within these trainings tend to use research salient activities and scenarios to contextualize learning. The experiences and examples related to mentoring for teaching shared from the participants in this study could add rich tones to training that then more comprehensively represents the activities of faculty in academic medicine.

Secondly, the model could be featured in training to develop teachers, particularly leadership training for educators. There was recognition by participants that formal teacher training has not been required to teach in academic medicine. This is concerning in and of itself and raises an additional red flag for those mentoring early career faculty for teaching. How do we know that appropriate best practices for teaching are encouraged and modelled. Training for leadership that included exposure to mentoring practices for teaching in the S-iR-O grounded theory model could help ensure that mentors are aware of what early career faculty need to facilitate pedagogical growth. Relatedly, direct observation and feedback of teaching seems to be another area for ensuring mentors are well equipped and well trained. Early career participants described a lot of mentoring effort directed toward advising them what teaching to do or which projects to get involved in but much less about how to teach or how to develop their teaching.

The major implication for practice is to ensure dissemination of the grounded theory for implementation by faculty mentoring early career faculty for their teaching. Having mentors reflect and contemplate how the practices in the S-iR-O grounded theory align with their own current practices could lead to deliberate use of the practices and improvement in their existing mentoring practices. Making the S-iR-O grounded theory available to mentors and leaders could encourage a culture of mentoring for teaching.

At a high level the S-iR-O grounded theory provides a mental model for thinking about mentoring in and across the different spheres. This model could be useful at all levels of an organization including from leadership decision making to the individuals involved in the mentoring relationships supporting teaching and mentoring. The S-iR-O theory offers leadership an understanding of the context and the pressures the organization exerts on mentoring practices

such as the promotion focus of mentors and mentoring committees and the need for faculty development to facilitate pedagogical growth due to limited teacher preparation in training.

There is a delicate balancing act in mentoring engaged on promotion. Clinical health science early career faculty have a clock that is ticking, counting down the time until they need to go up for promotion. Obviously, this clock cannot be ignored but how can early career faculty, mentors, and mentoring committees balance mentoring conversation on promotion with finding joy in what faculty are doing. An important component is the need for mentors and mentoring committees to understand who the early career faculty member is and how important promotion is or is not to them. Too narrowly focused mentoring on promotion may lead to promoting associate and full professors but what comes next if they did not find enjoyment in the work or the fulfilment in their career along the way. Is this ultimately what leads to decreased wellbeing, burnout, and failure to flourish beyond promotion?

Understanding of mentoring practices from the theory could translate and ensure adequate funding and resources for developing mentors, mentees, and teaching. Drawing attention to the time, access, and availability requirements of mentoring practices could see a future where mentors are compensated by more than just a good feeling for giving back in mentoring. The S-iR-O theory can serve as a reminder to individuals in mentoring relationships that there are phases to mentoring experiences such as the before, during, and after practices or the importance of knowing who someone is and developing trust in the relationship.

The mentoring practices for teaching in the S-iR-O study add new directions for professional practice for mentors. Knowing these practices, where these practices added depth and a sense of life to mentor development could improve mentoring. Paying attention to the before, during, and after phases of teaching and mentoring suggests concrete areas for deliberate

practice. Much like the leader participant who talked about “mealy mouthed” feedback, perhaps it is time to examine some of the moth-eaten mentoring practices of academic medicine.

Engaging the S-iR-O grounded theory model in professional practice helps with thinking systematically and presents the opportunity for being more intentional in mentoring. The S-iR-O grounded theory just scratches the surface of understanding mentoring practices that contribute to and militate against preparing early career faculty to flourishing in their teaching in academic medicine.

### **Limitations**

The major limitations of this study revolve around the departments included and identity characteristics of participants. A limitation of the study was the breadth of departments represented in the participants. I was only able to recruit participants from six departments from the twenty-seven in the school. I do not know if there was something unique about the mentoring practices for the departments I included compared to those not included. These departments all came from one school and university, another limitation.

Similarly, the terminal qualifications of the leader participants were primarily MDs with only one PhD and one MD, PhD. This contrasted with the early career faculty who were approximately fifty percent MDs and fifty percent PhDs. This uneven or more PhD focused sampling of early career faculty may have contributed to practices that are not as salient for faculty with medical degrees. There were only three male identifying participants among the leaders and early career faculty, meaning there was a much higher proportion of participants identifying as female. Likewise, participants were White despite my attempts to recruit faculty from other racial and ethnic groups. Some of the early career faculty had years of teaching experience prior to their faculty positions which may contribute to reduced mentoring needs for

teaching. It is not possible to estimate what impact these identity characteristics may have had on my findings and resulting grounded theory.

This theory was developed with and for faculty in academic medicine. There may be applications to other health sciences or areas of academia, but caution should be used in case there are systematic differences to faculty in this study. I was able to recruit both leaders and early career faculty from the same departments and some of the leaders were mentors of the early career faculty. Unfortunately, the sequencing of interviewing meant that I was not aware of these mentoring relationships and so was unable to ask about mentoring for teaching practices the mentors were or were not using with the mentees and vice versa. Due to the limitation of departments represented, caution should be exercised when extrapolating findings to departments, specialties and sub-specialties not represented in the study.

Another limitation exists for the representation of the faculty tracks in the study. The mentoring practices and grounded theory were identified by faculty on the clinical health sciences track at a variety of ranks across the leaders and early career faculty. Additional tracks like the traditional tenure track or the clinical teacher track were not represented in my study. Caution should be used if applying this grounded theory to faculty on other tracks.

There were limitations I had observed in other studies when conducting my initial literature review that I feel I perpetuated. I did not pay attention to the length of the mentoring relationships participants talked about. It also was not always clear if participants were describing multiple mentors or the same mentor. These two factors could have impacted for example the depth of a relationship if relatively new or the frequency a practice occurs for the same mentor perhaps indicating systemic practices as compared to ad hoc practices.

## **Conclusion/summary**

Mentoring is an aspirational activity, intending to assist early career faculty, help their progression, development, and flourishing in their careers. This is not always the outcome as at times these mentoring practices militate against flourishing and can impact the early career faculty members growth. There were many interesting practices identified by participants that could have utility for mentors and mentees to explore and reflect on. Some of the document examples would be helpful resources for formal and informal mentoring relationships. This study contributed to the literature and opens the door for future faculty development to enhance mentoring practices in academic medicine. This study provided a lens and developed the S-iR-O grounded theory model for conceptualizing mentoring practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers.

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### Appendix A: Article Characteristics Table Summary

|                                                                                   |  |
|-----------------------------------------------------------------------------------|--|
| Author/s                                                                          |  |
| Publication Year                                                                  |  |
| Study Location                                                                    |  |
| Intervention Type (policy, program, practice, or combo)                           |  |
| Intervention Description                                                          |  |
| Mentoring Type (dyads, group, peer, etc.)                                         |  |
| Intervention Duration                                                             |  |
| Intervention Purpose (promotion, career guidance, remediation, development, etc.) |  |
| Study Population                                                                  |  |
| Study Aims                                                                        |  |
| Methodology (qualitative, quantitative, mixed)                                    |  |
| Methodology Description (survey, interviews, observations, etc.)                  |  |
| Outcome Measures                                                                  |  |
| Important Results                                                                 |  |
| Miscellaneous                                                                     |  |

Citation

## **Appendix B: Recruitment Email Protocol and Template**

### **Mentoring Faculty for Teaching in Academic Medicine**

#### **Recruitment Email Protocol and Template**

Using a secure, university-issued email account, stahr2@wisc.edu, the selected potential participants will be sent a recruitment email using the email templates below with an attached copy of the study information sheet. To recruit specific participants for this study:

- In Phase 1, I will use institutional and school websites to identify leadership, faculty, and staff in departments with titles and roles related to faculty mentoring such as Vice Chair for Faculty Development and Promotion Coordinator and obtain their email addresses from websites or Outlook email search.
  - Using the Department Leadership and Mentoring Support Recruitment Email Template below, I will contact individuals to ask for an approximate 30-minute interview.
  - These interviews will explore mentoring practices in the department and identify potential early career faculty participants, their mentors, and mentoring committees that I will try to recruit in Phase 2.

#### **Department Leadership and Mentoring Support Recruitment Email Template**

Subject: Research Participation Opportunity – Mentoring Faculty for Teaching in Academic Medicine

Body:

Dear Potential Participant,

I am a doctoral student in the Educational Leadership and Policy Analysis program at the University of Wisconsin-Madison conducting this research study for my dissertation.

You are invited to participate in this research study which involves interviews about your departmental role and responsibilities for supporting and mentoring faculty for teaching in academic medicine. In addition, you may be able to identify early career faculty in your department who I could potentially recruit to participate.

Your interview data will help inform the mentoring of early career faculty and develop a theory of mentoring practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers.

If you agree to participate in this study, your interview will either be in person or virtually at your local site, in a private location. If you consent, your interview will be recorded. You have a choice about whether to complete the interview, but if you do participate, you are free to skip any questions or discontinue at any time. I hope to complete approximately 5-10 interviews. Semi-structured interviews will be approximately 30 minutes, audio recorded and transcribed.

For more information, please see the attached document or contact stahr2@wisc.edu with questions.

Sincerely,  
 Anne Stahr, MS  
 Doctoral Student, Educational Leadership and Policy Analysis  
 University of Wisconsin-Madison and  
 Director of Faculty Development Programming  
 Office for Faculty Affairs and Development  
 University of Wisconsin-Madison  
 School of Medicine and Public Health  
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 conrad@education.wisc.edu | (608) 263-3411

- In Phase 2, I will use the Faculty Participant Recruitment Email Template to recruit potential early career faculty participants, their mentors, and mentoring committees who meet the inclusion criteria such as assistant, associate, or full professors at UW-Madison School of Medicine and Public Health on any faculty track (tenure, Clinical Health Science (CHS), and Clinical Teaching) with teaching and/or mentoring responsibilities as is relevant to role.

### **Faculty Participant Recruitment Email Template**

Subject: Research Participation Opportunity – Mentoring Faculty for Teaching in Academic Medicine

Body:

Dear Potential Participant,

I am a doctoral student in the Educational Leadership and Policy Analysis program at the University of Wisconsin-Madison conducting this study for my dissertation.

You are invited to participate in this research study which involves interviews, observations, and document reviews about your faculty experience of mentoring for teaching in academic medicine. I am interested in your experience as: *[add salient role/title depending on if early career faculty, mentor, or member of mentoring committee]*.

Your interview, observation and/or document review data will help inform the mentoring of early career faculty and develop a theory of mentoring practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers.

If you agree to participate in this study, you will experience any or all the following:

- Provide your curriculum vitae and other documents relevant to your faculty and mentoring experiences for document review.
- Participate in a live in-person or virtual interview at your local site, in a private location. If you consent, your interview will be recorded. You have a choice about whether to complete the interview, but if you do participate, you are free to skip any questions or discontinue at any time. I hope to complete approximately 5-10 interviews. Semi-structured interviews will be approximately 60-90 minutes, recorded and transcribed.
- Observation of one of your mentoring and/or mentoring committee meetings.

For more information, please see the attached document or contact [stahr2@wisc.edu](mailto:stahr2@wisc.edu) with questions.

Sincerely,

Anne Stahr, MS

Doctoral Student, Educational Leadership and Policy Analysis

University of Wisconsin-Madison and

Director of Faculty Development Programming

Office for Faculty Affairs and Development

University of Wisconsin-Madison

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**Appendix C: Study Information for Participants  
Mentoring Faculty for Teaching in Academic Medicine  
Research Participant Information and Consent Form**

**Study Title:** Mentoring Faculty for Teaching in Academic Medicine

**Principal Investigator:** Doctoral Student Researcher: Anne Stahr

Phone: (248) 794-9782

Email: [stahr2@wisc.edu](mailto:stahr2@wisc.edu)

Clif Conrad

Phone: (608) 263-3411

Email: [conrad@education.wisc.edu](mailto:conrad@education.wisc.edu)

**Description of the research**

You are invited to participate in a research study which involves interviews, observations, and document reviews about faculty experiences of mentoring practices for teaching in academic medicine. You have been asked to participate because you are involved in mentoring and the mentoring process, supporting faculty promotions and/or leadership in a department or you are an early career faculty member of a department with teaching activities.

The purpose of the research is to help inform the mentoring of early career faculty and develop a theory of mentoring practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers.

This study will include department leadership, staff, early career faculty, mentors, and or members of mentoring committee

This research will be conducted at the University of Wisconsin-Madison Health Sciences Learning Center (HSLC) site, in a private location or using Zoom.

**What will my participation involve?**

If you decide to participate in this research, you will be asked to do any or all of the following:

- Provide your curriculum vitae and other documents relevant to your faculty and mentoring experiences for document review.
- Participate in a live in-person or virtual semi-structured interview, in a private location or using Zoom. If you consent, your interview will be recorded and transcribed.
- Observation of one of your mentoring and/or mentoring committee meetings.

Your participation in interviews and observations will last approximately 30-90 mins per sessions and will require 1 session for an interview and an observation of your mentoring committee meeting which will require 30-90 mins in total.

**Recording information**

These recordings will be used by approved study personnel.

The tapes/recordings will be kept for 12 months before they are destroyed.

**Are there any risks to me?**

There are minimal social and psychological risks. There is a risk of a confidentiality breach. Participants may become upset or experience discomfort. Participants may reveal personal, sensitive, or identifiable information when responding to open-ended questions. If participants' responses were revealed it could affect their employment or reputation.

**Are there any benefits to me?**

You may not directly benefit from taking part in this research study.

**How will my confidentiality be protected?**

This study is confidential. Neither your name nor any other identifiable information will be published. Only approved study personnel will have access to the data, use of pseudonyms, password protection, and secure storage of all data including audio, transcripts and participant documents. No information that could identify you will be included in the transcription. Your data and responses will be kept confidential and only one member of the study team will know who participated and be able to connect those individuals to the data. In publishing about the study, you will not be identified, and your name will not be used in presentations or publications.

If you participate in this study, we would like to be able to quote you directly without using your name. If you agree to allow us to quote you in publications, please initial the statement at the bottom of this form.

**Whom should I contact if I have questions?**

You may ask any questions about the research at any time. If you have questions, concerns, or complaints, or think that participating in the research has hurt you, talk to the research team, Anne Stahr (248) 794-9782 or Clif Conrad at (608) 263-3411.

If you have any questions about your rights as a research participant or have complaints about the research study or study team, call the confidential research compliance line at 1-833-652-2506. Staff will work with you to address concerns about research participation and assist in resolving problems.

If you decide not to participate or to withdraw from the study, you may do so without penalty.

Your signature indicates that you have read this consent form, had an opportunity to ask any questions about your participation in this research and voluntarily consent to participate. You will receive a copy of this form for your records.

Name of the Participant (please print):

Signature:

Date:

\_\_\_\_\_ I give my permission to be quoted directly in publications without my name.

## **Appendix D: Data Collection Protocols for Interviews, Observations and Document Reviews**

### **Mentoring Faculty for Teaching in Academic Medicine Data Collection Protocols for Interviews, Observations and Document Reviews**

#### **Interview Protocols**

##### **Mentoring Faculty for Teaching in Academic Medicine Department Leadership Interview Protocol**

Participant ID:

Participant First Name:

Interview Date and Location:

Interview was:            Virtual or In-person (indicate one) and recorded as

Classification of interview participant: Select most appropriate (could be more than one choice)

- Vice Chair for Faculty Development or Education
- Promotions Coordinator
- Other

Script: Thank you for agreeing to participate in this study.

The purpose of this interview is to inform the mentoring of early career faculty and develop a theory of mentoring practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers. I would like to know about your departmental role and responsibilities for supporting and mentoring faculty for teaching in academic medicine. Please answer the questions in the most complete way you feel able. All questions are optional so please indicate if you wish not to answer a question at any time. If at any time you would like to conclude this interview and not answer any more questions, please indicate this by saying something akin to “I am no longer able to answer any more questions”.

I emailed a consent/information form. Did you have an opportunity to read it? Do you have any questions? Do you consent to this interview? Do you consent to recording of this interview? Do you have any questions?

Questions:

Please think broadly about mentoring and include activities in promotion oversight committees where/when relevant.

1. To get us started, could you please tell me briefly about your title, role, and experience related to faculty mentoring and teaching in your department?
2. What specific actions do you take regarding early career faculty mentoring and teaching in your department?
3. How do mentoring and promotion oversight committees function related to faculty teaching in your department?
4. What can you tell me about the mentoring practices in your department that contribute to preparing early career faculty in academic medicine to flourish in their teaching throughout their careers? Please consider what you are doing, what you have observed or experienced (as mentee) and what you would like to do but not currently doing.
5. What can you tell me about the mentoring practices in your department that militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers? Please consider what you are doing, what you have observed or experienced (as mentee) and what you would like to do but not currently doing.

6. Please provide names of early career faculty who are engaged in teaching, their mentors and/or mentoring committees in your department you think I should invite to participate in interviews, observations, and document reviews.

### **Faculty Participant Interview Protocol**

Participant ID:

Participant First Name:

Interview Date and Location:

Interview was:                Virtual or In-person (circle one) and recorded as

Classification of interview participant: Select most appropriate (could be more than one choice)

- Early career faculty (mentee)
- Faculty mentor
- Member of early career faculty mentoring committee
- Other

Script: Thank you for agreeing to participate in this study. Do you consent to recording of this interview?

The purpose of this interview is to inform the mentoring of early career faculty and develop a theory of mentoring practices that contribute to and militate against preparing early career faculty in academic medicine to flourish in their teaching throughout their careers. I would like to know about your departmental role and responsibilities for supporting and mentoring faculty for teaching in academic medicine. Please answer the questions in the most complete way you feel able. All questions are optional so please indicate if you wish not to answer a question at any time. If at any time you would like to conclude this interview and not answer any more question, please indicate this by saying something akin to “I am no longer able to answer any more questions”. Did you receive a study information sheet? Do you have any questions?

IMPORTANT: Would you be interested in having me observe any of your mentoring sessions? Would you be willing to tell me your mentors name/s so I can reach out to them and see if they would be interested in participating?

### **Early career faculty member (mentee) questions**

Understanding who you are and what you do:

1. To get us started, could you please tell me about your faculty rank, specialty and subspecialty, number of years as faculty at UW-Madison?
2. To understand your faculty position in context, please briefly describe your appointment in terms of teaching, clinical, research and service activities you do? [Prompt: If helpful use percentages to indicate your effort for these activities]
3. Please describe any teaching you do/have done including who the learners are and the learning environments where you teach? [Prompt: clinical – at the bedside, clinical – in the OR, clinical – in the clinic, in the classroom, etc.]
4. How long have you been teaching in your career? [Years, courses, semesters, etc.]

Understanding your mentoring experiences

5. Please describe your experiences with your mentor/s and mentoring committee generally? [Prompt: Do you feel satisfied with your experiences? Do you feel they are good relationships? Are you looking for more mentoring or less mentoring in these relationships?]
6. Please describe your experiences with your mentor/s and mentoring committee specifically related to teaching?

7. What can you tell me about the mentoring practices that your mentors and/or mentoring committee employ/employed that contribute to preparing you to flourish in your teaching in academic medicine throughout your career?
8. What can you tell me about the mentoring practices that your mentors and/or mentoring committee employ/employed that militate against preparing you to flourish in your teaching in academic medicine throughout your career?

### **Observation Protocol**

Participant ID:

Participant First Name:

Observation Date and Location:

Observation was: Virtual or In-person (circle one) and recorded as

Classification of observation: Select most appropriate (could be more than one choice)

- Mentoring meeting with early career faculty (mentee) and faculty mentor
- Early career faculty mentoring committee meeting
- Other

Script: Thank you for allowing me to observe this session. I will be taking field notes but generalized to the group and not individuals.

Field Notes: [Note any general and/or specific mentoring practices related to teaching – who provides them and the context; How does this observation help my understanding of practices for mentoring for teaching?]

### **Document Review Protocol**

Participant ID:

Document Name or Type:

Purpose of Document:

Date of Collection:

Location for Storage: [Both for mentees/mentors/department and my files]

Who Generates/Owns/Accesses Document:

Document Contents:

Unique Features:

Field Notes: [How does this document help my understanding of practices for mentoring for teaching?]