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Faculty mentor perspectives of a formal mentoring program for student pharmacists: A qualitative study

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Abstract

Objective: To describe pharmacy faculty perspectives on participating in a formal mentoring program for student pharmacists. *Methods:* This qualitative study used ten, 45 to 60 minute semi-structured interviews conducted in November and December, 2012 with faculty mentors sampled randomly by strata of on-site off-site positions at a single public university college of pharmacy. Interviews were recorded and transcribed. Transcripts were coded using an inductively created consensus code list. The research team iteratively grouped codes into themes, developed summaries, and identified representative quotes. *Results:* Analysis of interviews produced three main themes. Mentor interaction was described as having an investigative or responsive orientation, which influenced mentor actions and perspectives for the relationship with the student mentee. Program structure and concerns included a perceived absence of clear program objectives. Mentor response to feedback focused on 3 feedback sources: administrators, peers, and students. *Conclusions:* Overall, faculty mentors in this program had different approaches to, expectations for, and experiences in their formal mentoring program participation. These differences are initial descriptions of mentor approaches toward mentoring interactions by faculty in a formal mentoring program. Colleges of pharmacy leaders and administrators may benefit from more clearly specifying and communicating program objectives in order to achieve results for mentees, mentors, and the organization.

Introduction

The importance of mentoring has long been established, especially in business and among academic faculty.[1] More recently, mentoring has been incorporated by schools and colleges as alternative methods for student development.[2-4] Recognizing the value of mentoring, the Accreditation Council for Pharmacy Education (ACPE) 2007 guidelines 23.6 and 24.2 mandate that schools of pharmacy provide some form of mentoring for student pharmacists,[5] although the interpretation and implementation of these guidelines is currently up to the institution. More recently, ACPE 2016 standards and guidance documents have specifically included professional requirements for faculty and preceptors to serve as "mentors" through "formal and informal interactions".[6,7]

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Variations in students, faculty, administration, and institutional culture may result in different approaches to student pharmacist mentoring across schools and colleges of pharmacy.

Traditionally, mentoring is characterized by an organically originating relationship between a senior mentor and a novice, usually younger, mentee with the primary goal of advancing the mentee's career. Sometimes this is referred to as informal mentoring.[8] Formal mentoring differs in that mentors are assigned or matched to mentees *by the organization* and the mentor-mentee dyad work to develop the mentee's career and mentoring functions as stipulated *by the organization*.[8] Mentoring is different than academic advising, with the latter focusing on tasks such as course selection and meeting degree requirements and the former focusing on a developmental relationship.

In Doctor of Pharmacy (PharmD) programs, formal mentoring can be used to professionalize, socialize, and integrate

students into the pharmacy profession.[4] Such programs have paired student pharmacists with practicing pharmacists[9-11] and with faculty mentors.[12] Peer mentoring also has been described between student pharmacists and pre-pharmacy students.[13] The American Pharmacists Association: Academy of Student Pharmacists suggest faculty-student mentoring programs can be beneficial for increasing professional involvement, networking, and career counseling and recommend students take the Initiative to reach out and engage faculty in professional development activities.[14] To our knowledge, no studies have examined faculty perspectives of serving as formal mentors to student pharmacists.

A model has been proposed for evaluating formal mentoring programs in pharmacy education, informed by mentoring literature in business and higher education.[12] A series of focus groups of student pharmacists was conducted to gather mentee perspectives on formal mentoring programs.[12] In that study, students stressed their own busyness and participation in multiple activities as a barrier to engaging in the mentoring program which some saw as just one more activity. Students also were unsure of program goals. Students identified topics, such as networking, encouragement, and identification of professional development opportunities, as important functions. Mentees thought the program could produce outcomes, such as greater opportunities for professional involvement and a future relationship between the mentor and the school that could last beyond graduation. Formal mentoring program effectiveness is predicated on benefit and satisfaction among both mentors and mentees,[15] which supports the need to examine formal mentoring from the perspective of the faculty mentors. This is especially true given that faculty demands are different than those of students,[16] and faculty can speak uniquely to their own goals, experiences, and expectations. The objective of this study is to describe pharmacy faculty perspectives on participating in a formal mentoring program for student pharmacists.

Methods

This study took place at a pharmacy college within a research-oriented, public university in the Midwest. In 2006, the study college initiated a formal mentoring program, randomly assigning all first year student pharmacists to faculty volunteers (Appendix A). Students were informed of the formal mentoring program during their orientation to the pharmacy college. Faculty volunteers were provided an annual program orientation and overview, but not required to attend. Approximately 5 mentees were assigned to each volunteer faculty mentor and no efforts to match mentors and mentees on characteristics occurred. The stated purpose of the formal mentoring program was to "coordinate faculty mentoring of PharmD students in career counseling, professionalism, and academic success strategies in compliance with ACPE's Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree (Guideline 23)."[5]

In April and May of 2012, two P3 students, with the assistance of a college administrator, electronically surveyed all current P1-P4 students to investigate their perceptions of the mentoring program. A request to complete the student survey was sent to the approximately 430 member student body via an email from the Associate Dean for Professional Education. The survey was administered through Qualtrics (Provo, Utah) and 146 students responded. Qualitative and quantitative data about student preferences for mentoring topics, perceived benefit, barriers, and space for open-ended comments were analyzed descriptively. Data were compiled in a summary report later emailed to faculty mentors by the mentoring program coordinator in August, 2012 for informational purposes. The report highlighted several important findings from the mentee perspective. A large proportion of respondents desired more contact and wanted to see their relationship with their mentor grow. Mentees were most interested in CV/resume review and preparation and discussion of rotations, electives, and residency opportunities. Mentees identified limited interaction and concerns for being bothersome to their mentor as the top barriers when contacting their mentors.

The present study focused on exploring faculty perspectives on participating in the formal mentoring program. Individual semi-structured interviews were used to collect qualitative data. The interview guide (Appendix B) was used to provide structure and consistency to interviews. Informal feedback on the interview guide was obtained from colleagues prior to its use. The authors conducted interviews in November and December, 2012. Two researchers were present at each interview, one focused on question asking, and the other created observational notes capturing data not conveyed verbally.

At the time of the study, 28 out of approximately 64 faculty were assigned mentees through the mentoring program. Two mentors were excluded because they were advisors to the present study and two mentors were excluded because they were involved in the administration of the mentoring program. The remaining 24 mentors were categorized into two groups, full-time faculty housed primarily at the college, and faculty with a shared faculty appointment housed primarily at an off-site hospital or clinic. Six mentors were selected randomly from each strata and invited by email to participate voluntarily in a study interview. Ten invited

mentors agreed to participate, one mentor could not be reached and one had scheduling conflicts. Interviews lasted between 45 and 60 minutes, 9 occurred in the office of the mentor and one in a small classroom at the college. A contact summary sheet was completed by one of the interviewers following each encounter to summarize the interviewer's initial thoughts and identify potential codes and patterns.[17] The contact summary sheet contained the following headings: main themes, affective responses, behavior changes, and preferences for feedback. Contact summary sheets are used to immediately capture the initial thoughts and impressions of the interviewers following an interview so that this information is not lost in the time it takes to transcribe interview recordings and shift to the data analysis phase of the research.

Interviews were recorded, and transcribed verbatim. The three investigators independently coded the first three printed transcripts and observational notes for the purpose of generating a code list. The purpose of coding was to succinctly assign a word, or set of words to a phrase, sentence, or section of text conveying an idea that would summarize the concept being conveyed. This allowed the codes and corresponding text to be sorted so the text could be interpreted together. The researchers then met to form a consensus list of codes. The 10 transcripts were divided and coded using the consensus code list, although the coder was free to assign new codes, if appropriate. Each researcher examined the coding of the other researchers to identify discrepancies. These discrepancies were resolved later during team meetings. This approach was chosen over establishing inter-coder reliability because the study goal was not to quantify code frequencies, but rather to seek interpretive meaning from unique aspects of the data. Quotes were sorted by code and summary descriptions of each code were written. This process, in concert with reviewing summary findings from the contact summary sheets, iteratively produced a set of broader themes. A member check was conducted to support the validity of the interpretations.[17] Each participant received a copy of their contact summary sheet via email and was asked to comment on the interpretations including clarifications and removals. Participants were supportive of the interpretations and desired no substantive changes. The University Institutional Review Board approved all study elements.

Qualitative data and coding were summarized using descriptive summaries. Representative quotes are the raw data evidence that supports the code meaning,[18] and are accompanied by respondent charactieristics with T denoting tenure track or tenured, C denoting clinical track, and M and F denoting male and female.

Results

Ten faculty mentors were interviewed and saturation[17] was deemed to have been reached by the research team as no additional concepts were raised in final interviews. Characteristics of study participants can be found in Table 1. Study participants were classified into gender and career-track taxonomies (i.e. Male (M) or female (F); clinical-track (C) or tenured/tenure-track (T)) and given an interview identification number based upon order of interview to allow for confidential but descriptive links between raw data and the provider of the information. For example, a male, clinical-track faculty member interviewed 7th in the study would be coded as MC7.

The qualitative analysis produced three themes: mentor interaction approach, program structure and concerns, and mentor response to feedback. A summary of themes, codes, and representative quotes can be found in Table 2. The most prominent theme, mentor interaction approach, was an interpretive theme. Interpretive themes represent higher-order meaning inductively generated by study investigators to create clarity across study participants' perceptions. The other themes, program structure and concerns, and mentor response to feedback, were descriptive themes. Descriptive themes are applied to cluster topics and perceptions voiced by participants together and represent lower-order clustering generated by study investigators.

Mentor Interaction Approach
Investigative vs. Responsive Mentoring Orientation - Mentors expressed their interactions with mentees in what appears to be a dichotomy. Faculty with an *investigative* mentoring interaction approach, actively engaging in regular and intentional outreach, intended to extend or maintain a line of communication with their assigned mentees. Investigative mentors also appeared to have more ideas for initiating conversations, during future meetings with their mentees.

> *If I sit back and wait for them, it's not going to happen. MT1*

Other mentors had a *responsive* mentoring interaction approach, characterized by making an initial contact paired with an invitation for mentees to direct any future interactions. These responsive mentors then waited for their mentees to self-identify needs and reach out for their mentor's advice. Several responsive mentors described situations in which they had informally mentored students that were not assigned, but approached them for advice under their own volition.

I address the students concerns whether or not they are under my mentorship, and that's where I think mentoring exists. It's in the students that you are not assigned, but the students that reach out to you. MC7

Responsive mentors expressed a desire for students to take the lead on driving interactions and defining their needs. The responsive mentors reported valuing conversation around specific issues (e.g., what residency is right for me?) rather than general topics, such as career skill development (e.g., how to prepare a CV).

I'm usually pretty forward and tell them what things I'm going to be able to help with and what things I really won't be able to help with. FC5

All three of the tenure-track mentors housed at the college appeared to have the investigative mentoring interaction approach, but this approach was also seen in one clinical faculty mentor housed at the academic medical center. There was insufficient evidence from the interviews to suggest that the investigative-responsive mentoring orientation presented differently across mentor demographic characteristics, such as department, gender, academic rank, or promotion track (i.e. tenure vs. non-tenure).

Mentor Approachability vs. Social Barriers - Mentors seemed to share a strong responsibility for making themselves approachable to their mentees. However, variation in how the mentors viewed the social aspects of their mentee interactions was evident. One mentor was particularly adamant about creating clear boundaries in their interactions with their mentees and wanted to focus solely on professional issues during their interactions rather than attending school-sponsored socials. Some mentors also described limiting interactions with mentees by not participating with students on social media. At the opposite end, one mentor expressed a great interest in getting to know their mentees on a personal level. This mentor expressed joy in describing meeting with their mentees' family at the White Coat Ceremony at the beginning of the first professional year.

Program Structure and Mentor Concerns
Vague Mission and Expectations – Many mentors expressed a desire for clearer program goals, outcomes, and expectations for faculty participation in the formal mentoring program. This desire seemed to influence mentor perceptions and experiences, regardless of mentor characteristics.

I just don't know what's expected. FC8

Diverse Student Needs and Preferences - Mentors also commented on challenges and successes they experienced in interacting with diverse mentees' needs and interests. More specifically, they expressed uncertainty in how the program assessed such diverse needs and interests. Several faculty mentors expressed disappointment in low engagement by some mentees. Also, mentors reported that student needs change over time in the program and desired more guidance on what to talk about during different points in a student's academic career.

I saw the top three were things like discuss rotations and electives and, and residency opportunities and those are the things we end up talking about usually, but, you know, for an IPPE 1 that conversation ends pretty quickly because they don't know yet what they're doing and they don't have any choices about their rotations… FC9

Initial Meeting and Reflections – Most mentors appreciated having a required initial meeting with their mentee, a recent change to the formal mentoring program. These initial meetings helped the dyad gain familiarity, but did not appear to lead to a shared understanding of goals and expectations for their mentoring dyad going forward.

I think the first interaction that you have with them [at orientation] is not necessarily reflective of future interactions. MT1

In the year prior to this study, another formal mentoring program change was requiring mentors to review their mentees' introductory pharmacy practice experience (IPPE) reflections. Some mentors reported confusion about how this requirement fit into the formal mentoring program goals and were less interested in performing the required task.

Time and Proximity Barriers - Mentors reported being constrained by time, and some sought ways to increase their impact by suggesting strategies to increase the efficiency of the program. One mentor expressed that given his time constraints, certain potential mentoring topics would be better delivered as a group than one-on-one for efficiency reasons.

If I discuss a CV or resume with one student for an hour, that's a waste of my time, when there could be a program that teaches that skill to 100 in an hour. They get the same advice, it's consistent, versus, they get 100 different pieces of advice from 50 different mentors on how to do a CV. MC7

Another challenge expressed by some mentors was proximity with mentees. This manifested geographically, as some mentors' practices are located in other buildings or cities. It also manifested temporally, as some mentors do not teach until later in the PharmD curriculum.

Formal Mentoring Program Feedback to Mentors
Mentors reported soliciting and receiving feedback from three sources: administrators, peer colleagues, and students. As reported by some mentors, a desire to satisfy or exceed any minimum formal mentoring program requirements fueled feedback solicitation and utilization. However, some mentors expressed uncertainty with program objectives and found feedback to be less impactful.

> *I don't think you can do an evaluation that has any meaning because everybody is using their own scoring system. MC4*

Administrator Feedback – Some mentors expressed a desire that their efforts in the formal mentoring program be more clearly recognized for faculty productivity and performance evaluation or to be informed whether or not they were meeting administrators' expectations as a mentor in the program.

Peer Feedback – Some mentors reported meeting with other mentors to identify strategies for becoming more effective in their formal mentoring.

Student Feedback - Mentors had differing views on the utility of surveying mentees about the program and on how frequently this type of feedback should be obtained. While mentors described appreciation for mentee evaluations, they also recognized the limitations of aggregate student feedback, especially when not completed by all students. One mentor questioned the utility of mentee feedback because of the wide variation in student engagement in the program. Mentors also seemed reserved in their interest in receiving feedback because they perceived program expectations as vague, both for themselves and for students. Mentors also reported gathering feedback informally from their mentees regarding the program.

> *Direct, by that I mean, you know, the student saying thanks for helping me here or you know, I learned a lot or whatever, whatever a student might say. Um, indirect because they keep coming back, they, they continue the contact. MT3*

Discussion
The present study enhances our knowledge of formal mentoring programs for student pharmacists in three ways. First, this study adds the faculty mentor perspective of the faculty-student formal mentoring dyad to pharmacy education literature, providing additional context for evaluating formal mentoring programs in pharmacy and other educational settings. Second, this study proposes two latent faculty mentoring approaches for interacting with student mentees as a component of a formal mentoring program. Finally, this study highlights the need for organizational leaders to be specific when creating formal mentoring program goals in colleges of pharmacy wishing to implement formal mentoring programs in an effort to provide both responsive and investigative mentors with guidance.

Mentors with an *investigative* mentoring style wanted to ensure they were meeting expectations by making adequate contacts and discussing recommended topics with mentees. This is more consistent with the concept of formal mentoring from the business and education literature where pairs are matched together to meet organizational objectives.[1] *Responsive* mentors took on roles that seemed more consistent with a traditional definition of informal mentoring, in which they waited for their mentees to seek their help and then they responded by providing assistance. The investigative and responsive mentoring styles may represent more of a continuum than a true dichotomy and warrants further exploration.

Recognizing the variation in mentoring styles may be useful for PharmD program administrators, given the importance of satisfying accreditation standards, meeting student needs, and accommodating resource limitations. One way where differences in orientation may be important is with mentor buy-in to the formal mentoring program. Situations will arise in which the organization may have goals for students that the student may not actively pursue. Thus the mentor would have to be the one leading obtainment of an organizational objective. For example, an organizational objective may be that students stay engaged as alumni. It may be advantageous to devise ways to require mentoring interactions on this topic and provide guidance to the mentor on how to engage in specific discussions. Making this expectation clear may help responsive mentors be more active in their encounters, rather than waiting for students to self-identify this as a need. Literature specific to formal mentoring stresses the importance of defining the organizational objectives for the program so they can be consistently addressed by all dyads, not just those where an organic relationship happened to develop.[1]

Depending on the objectives defined by the organization for the mentoring program, there may be benefit for some schools to use a term closer to a career counselor/advisor, professional navigator, or another term that personifies the specific program objectives. Such a modification may enable faculty, especially those with responsive orientations, to approach their role in a way that is less encumbered with a value-laden term, such as mentoring, which has a well-established cultural meaning and expectations.

Clearly defining program vision and objectives also may be helpful for establishing a structure for constructive feedback. Clarifying program expectations for both student mentees and faculty mentors, paired with mechanisms for feedback to mentors on the extent of achievement of program objectives, might lead to greater success of the mentoring program. It may be beneficial for institutions to incorporate feedback into faculty performance evaluations, as advocated by some of the mentors. Furthermore, faculty participation should be acknowledged, measured and rewarded, as it does take time away from other responsibilities. Aligning program objectives with organizational mission, and allocating resources and rewards accordingly is supported by business literature linking mission-driven organizations with higher levels of performance.[19]

The mentor perspectives and experiences reported here had similarities and differences from those reported previously by student mentees within the same program.[12] Mentors and mentees both noted their own time constraints, and perceived time constraints from the other party. Related to level of engagement, both mentors and mentees appear energized when a spontaneous mentoring relationship grew from mutual interests and compatible personalities. Not all relationships, however, can be so organically created given the diversity of the parties involved, especially as mentors and mentees have different ideas about each other's' roles and functions. Challenges to relationship formation and goal attainment are further exacerbated when program goals are not clear or when participants have different definitions of mentoring and who should take the lead. For example, one student from the mentee study desired a friendship with the mentor and preferred social gatherings, whereas some mentors from the mentor study required a strictly professional relationship. There is some evidence that most faculty prefer to distance themselves socially from students, for example, by not befriending on social media.[20]

Like all qualitative research, there is a tradeoff between exploring context and generalizability. Variation in organizational culture, program objectives, resources, faculty and student characteristics, and other factors may be

expected to produce different findings. Also, researchers with different backgrounds and experiences may generate different interpretations of study data. Where interpretations were provided, raw data in the form of direct quotes were presented to support investigators' trustworthiness and transparency.

Future research could explore the investigative/responsive mentoring orientation through the development of a measure. Such a measure could be associated with mentor characteristics such as the mentor's past mentoring experience as a mentee, workload, normative pressures, and expectations in an effort to better understand mentor motivation. For example, faculty with Doctor of Philosophy (PhD) degrees or fellowships may have experienced a more focused program of mentoring during their graduate training, which they then emulate. Research also could test the hypothesis that clear expectations mute variation in mentoring orientation for evaluation of formal mentoring programs effectiveness. The relationship between faculty willingness to engage socially with students and achievement of organizational objectives, such as building an engaged alumni base, warrants further investigation in virtual and non-virtual interactive spaces.

Conclusion
Overall, faculty mentors in this program had different approaches to, expectations for, and experiences in their formal mentoring program participation. These differences are initial descriptions of mentor approaches toward mentoring interactions by faculty in a formal mentoring program. Colleges of pharmacy leaders and administrators should establish formal mentoring program goals focused on achieving specific program objectives for all students.

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Table 1: Demographics of mentors participating in semi-structured interviews (n=10)

Variable	Number of Participants
Gender	
Male	7
Female	3
Track	
Tenure	3
Clinical	7
Appointment	
Full time faculty	5
Shared	5
Department	
Pharmacy Practice and Science	8
Pharmaceutical Sciences and Experimental Therapeutics	2
Professor Rank	
Assistant	4
Associate	4
Full	2
Office Location	
College of Pharmacy	5
Adjacent Academic Medical Center	5

**Table 2: Themes, codes, and representative quotes from semi-structured interviews
with faculty mentors in a formal mentoring program for student pharmacists**

Theme	Code	Quote
Mentor interaction approach	Investigative	*It is really just being proactive and trying to keep up the schedule to meet with the students and being persistent trying to get the students together. MT2*
	Responsive	*I feel comfortable that I've tried* [initiating communication with mentees] *and some students come, you know, some don't. MC3*
	Approachability	*I think my role is to be available, and to make that known. MC6*
	Social barriers	*I think there needs to be a boundary* [with] *social media, between faculty and student lives. MC7*
Program structure and concerns	Vague mission and expectations	*I don't know, for me, I would feel like having some additional suggestions would be very helpful. FC9*
	Diverse student needs	*It depends on what that student needs. I think that the flexibility in the mentoring and the mentor-mentee relationship is critical. FC8*
	Diverse student preferences	*One of the frustrations that I have as a mentor is though I do all of these things, I still have these mentees that I've never, I've only met just because I went to the orientation and I haven't seen them since. FC8*
	Initial meeting	*It's good because it's forcing at least a one-time meeting. MC4*
	Responding to reflections	*The reflections, that's not my favorite part of it, because sometimes it can be really time consuming. FC5*
	Time	*I'm sure it's reciprocal and they don't want to waste mentors' time, just with idle chitchat. MT3*
	Proximity	*I don't teach class until P2 fall, spring, so if I hadn't met my mentee in 4 semesters that would be really bad so I would say that you need to make sure that you have physically met your mentees by within that first semester. FC8*
Mentor response to feedback	Administrator feedback	*I don't know that this* [report] *influences me, well I guess it does influence me in the sense that I'm tempted now to make an additional effort to try and contact my mentees. Probably next semester. More so than I would have prior to looking at this seriously or being aware of your data. MT3*
	Peer feedback	*It seems I need to talk to another faculty member, [find their] secret for success. How do you fit it in? And what's really worked for getting students together? MT2*
	Student feedback	*I don't know at this point that the students could give feedback that would be meaningful, I have somebody in my group that says [what I'm doing] is not what they want out of a mentor, then I'm a crappy mentor… and it's like well what else am I supposed to do? MC4*

Abbreviations for respondent: (F)emale, (M)ale, (T)enured, or tenure track, (C)linical track, # is respondent.

Appendix A: Mentoring Activities to Provide Context for the Program

Mentoring Activities	Mentoring Activity Description
P1 orientation luncheon	Each mentor and his or her assigned mentees meet at the start of the P1 year for lunch where they make introductions and engaged in a casual discussion about the school and profession.
Welcome to the profession (White coat) ceremony	Mentors are required to attend the "Welcome to the profession (White coat) ceremony" and encouraged to make contact with each mentee.
Required meeting	Mentors and mentees are required to meet face-to-face at least once during the student's P1 year as part of the student's introductory practice experience. Mentors are encouraged to discuss career interests, professional involvement, life story, and establish expectations and preferences for subsequent meetings and communication.
Respond to reflections	Mentors respond to student written reflections about the welcome to the profession ceremony and their introductory practice experiences.
Additional meetings (optional)	Mentors or mentees may arrange additional meetings to address issues or track progress over the remaining professional years. Additional goals include providing encouragement and building relationships, encouraging participation in collegiate, campus, local, state, and national pharmacy activities, providing constructive feedback, and engaging in big picture discussions related to the profession.
Professional development activities (optional)	Mentors may attend various student-driven professional development events held periodically throughout the year.

Appendix B: Semi-structured Interview Guide

- Tell me about a positive mentoring experience you have had with one of your assigned student mentees.

  [*Several questions were asked related to a mentoring program survey administered to students (See methods for more details)*]

- What did you find most interesting in the report/what did you have the strongest reaction to?
- How do you interpret this result?
- How does this feedback make you feel/does this elicit an emotional response from you?
- How do you see yourself using this feedback?
- Are you planning on changing your mentoring behaviors?
- What other types of feedback do you think would be beneficial with regard to the formal mentoring program?
- How often? What should be the focus?
- How would you rate yourself as a mentor in this formal program?
- Is there anything we didn't talk about that you would like to discuss about the mentoring program?