

Successful Practices in

Preparation for and Success in Academic Careers in Pharmacy

*Professional development strategies and/or programs, Use of
faculty teaching portfolios, and Recruitment strategies*

Pharmaceutical Education 2005

Mercer University
Southern School of Pharmacy
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Preparation for and Success in Academic Careers in Pharmacy

Area of Successful Practice: Professional development strategies and/or programs

Description

The Mentoring Program at Mercer University Southern School of Pharmacy provides a structured relationship between a faculty member with academic experience (mentor) and a new faculty member (mentee) who desires to gain that experience. Desired outcomes of the program include: (1) Increased understanding of academic responsibilities; (2) Development and improvement of expertise in the areas of teaching, research, and service; (3) Stimulation of professional growth and development to strengthen candidacy for promotion and/or tenure; (3) Increased awareness of funding opportunities for grants and contracts to conduct research; (4) Increased awareness of importance of serving on department, school and university committees; (5) Increased understanding of School and University infrastructure; and (6) In the case of clinical faculty, achievement of proper and appropriate balance of academic and practice responsibilities.

Experienced faculty members are selected by the Department Chair to mentor new faculty. The mentor must have demonstrated an ability to be an effective teacher and researcher. The mentor must also have demonstrated a commitment to service.

The mentor must be willing to serve for one academic year, meeting with the mentee at regularly scheduled intervals and providing feedback regarding the mentee's progress. A mentee who desires to extend the mentoring process beyond one academic year may select a mentor from a list of available mentors who match his/her interests in teaching, research, and service. Department Chairs and Vice Chairs do not serve as mentors to faculty in their departments. These administrators have overall responsibility for faculty development within their departments. If the mentor-mentee relationship proves to be unsatisfactory at any time, the mentor or mentee may alert the Department Chair and request a new mentor.

The mentee provides a copy of his/her objectives for the year to the mentor. The mentee, in consultation with the mentor, develops a plan to address the objectives for the mentee. The written plan includes a minimum three scheduled meetings between the mentor and mentee and measurable endpoints.

The mentoring process may include, but is not limited to, the following activities: (1) assisting the mentee with preparation of lecture material including handouts, objectives, slides, and test questions; (2) orienting the mentee to the classroom and if requested attending the mentee's first lecture; (3) discussing teaching strategies and problem-based learning; (4) inviting the mentee to the mentor's clinical site to observe student-faculty interactions; (5) discussing evaluation of student performance; (6) assisting the mentee with identifying grant sources for research, reviewing ideas for research, proposals, and the written results of research; (7) discussing and assisting with poster/platform presentation of research, and assisting with review for publication of research; and (8) discussing and assisting the mentee with understanding service responsibilities to the University, School, Department and the profession.

An evaluation of the mentee's progress in meeting the outcomes of the mentoring program is prepared jointly by the mentor and mentee a minimum of two times per academic year (February and June) and presented to the mentee's department chair. The evaluation consists of a rating of the mentee's progress with respect to each intended outcome of the mentoring program. Ratings are made using a 5-point scale where 1 represents poor and 5 represents excellent. Following the rating associated with progress in each outcome, a statement of strengths and areas for improvement with plans is written. At the end of each academic year, the mentee assesses the effectiveness of the mentoring program by rating the mentoring process with respect to each intended outcome using the same 5-point scale.

Outcomes

The most recent evaluation of the mentoring program occurred at the conclusion of academic year 2003-04. Three new faculty completed the mentoring program and assessed its effectiveness with respect to program outcomes. The mean rating was 4.0 (more than adequate) for *increasing awareness of importance of serving on department, school or university committees* (sd=1.0) and *achieving proper and appropriate balance of academic and practice responsibilities* (sd=0). For the following four items the mean rating was 3.667 (between adequate and more than adequate): *Increasing understanding of academic responsibilities* (sd=0.58), *developing and improving expertise in teaching* (sd=0.58), *stimulating professional growth and development to strengthen candidacy for promotion and/or tenure* (sd=0.58), and *increasing understanding of the School and University infrastructure* (sd=1.16). The mean rating was 3.33 (sd=0.58) for *developing and improving expertise in teaching* and *developing and improving expertise in research*, indicating the mentees considered the mentoring program to be between adequate and more than adequate in these two areas. These results indicated the outcomes of the program had been met. The mentoring program continues to be offered and refined.

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Preparation for and Success in Academic Careers in Pharmacy

Area of Successful Practice: Professional development strategies and/or programs

Description

Most pharmacy degree and graduate school programs do not thoroughly prepare their graduates to be skilled teachers. Of the triad of teaching, scholarship, and service, most new faculty members are best trained in areas related to their practice specialty or content area. This includes practical training in providing pharmacy services and conducting independent research. However, teaching is the area most new faculty members are least well prepared to undertake. Success in the academy depends on solid performance in all three areas of the triad. A new program at Mercer University Southern School of Pharmacy is designed to address the teaching quandaries that may face those faculty members new to the academy. The program, being called “The Faculty College”, began in fall 2004 with its inaugural class of 4 new faculty and 6 faculty members who have been in academia for fewer than 4 years. The School’s Center for the Advancement of Teaching and Learning (CATAL) is coordinating the Faculty College. The CATAL is composed of recipients of the School’s Distinguished Educator Award. The mission of the CATAL is to support and promote effective and innovative teaching that enhances learning in the Southern School of Pharmacy. .

The goals of the Faculty College are the following: (1) to expose faculty to a variety of instructional techniques; (2) to encourage the use of active and cooperative learning in the classroom; (3) to expose faculty to support structures and resources for teaching at Mercer; and (4) to provide an opportunity for conversation about teaching and learning. All new faculty members in the School are a part of the Faculty College, and are required to attend and participate in 15 scheduled sessions held throughout the year. The College members are asked to read, write, reflect, and come prepared to share ideas at each meeting. As the year progresses, each new faculty member develops a teaching philosophy and maintains a reflective journal of the Faculty College experience. At every session, all participants maintain confidentiality of colleagues’ questions and concerns so that an environment of free exchange is created. Many of the components produced during the Faculty College can be placed in a teaching portfolio that can be used as part of the dossier at time for promotion and tenure.

Some of the topics covered in the Faculty College are an introduction to and history of pharmacy education, how students learn, fostering academic integrity, civility, and tolerance, developing and presenting lectures, methods for active learning, cooperative and team learning, methods of student assessment and grading, documenting and evaluating teaching activities, use of technology in the classroom, teaching in the experiential setting, and the scholarship of teaching and pedagogical research. The first session of the Faculty College was held at the home of the Director of CATAL to produce a more social setting in which initial bonding of the group could occur. At the end of the first year, a “graduation” ceremony will be held to recognize the founding participants of the Faculty College. We also hope that insights gained from the participants’ journaling exercises will give us feedback to improve the program for future years.

Outcomes

At the conclusion of first semester and approximately half of the programming for Faculty College, eight faculty participants rated the effectiveness of the Faculty College in preparing them for eleven outcomes using a 5-point scale where 1=poor and 5=excellent. Mean responses for each outcome ranged between 4.0 (more than adequate) and 3.0 (adequate) as follows: *Use lectures appropriately to enhance learning* 4.33 (sd=0.52); *use and explain the rationale behind a variety of active and cooperative learning techniques* 4.14 (sd=0.69); *describe changes in pharmacy education* 4.13 (sd=0.64); *use various*

technologies to enhance teaching & learning 4.00 (sd=0.71); discuss methods of research related to effective teaching and learning 4.00 (0.89); demonstrate the ability to design curricula and learning activities that accommodate a variety of learning styles 4.00 (sd=0.89); reflect on your teaching goals, style, beliefs, and the climate that you strive to set in the classroom 3.75(0.89); write and assess teaching & learning goals and objectives 3.71 (0.76); use and describe a variety of classroom assessment techniques 3.71 (0.76); and begin development of a teaching portfolio 3.43 (0.79). These results indicated the outcomes of the program had been met. The Faculty College will continue to be offered and refined.

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Preparation for and Success in Academic Careers in Pharmacy

Area of Successful Practice: Doctor of Pharmacy Student Advising/Career Development and Planning

Evaluation of a Seminar Pedagogy as a Means for Developing Positive Advisor/Advisee Relationships

Description

Objectives: The goal of this project, initiated three years ago, was to conceptualize, develop, implement, and evaluate a weekly, academic advisor's seminar. The intent was to maximize advisor exposure to his advisees and minimize time dedicated to do so while helping advisees begin to develop performance-based abilities. The seminar series involved dissemination of basic information to the students about the college, faculty ranks, *curriculum vitae* development, problem-based exercises among others. Further, it encompassed career planning exercises, including outside speakers, curriculum/educational issues (e.g., academic integrity, appropriate behavior and professionalism), reflection exercises, and microteaching exercises.

Methods to demonstrate outcomes: The evaluation component of this study used a single group post-test design with a retrospective pre-test component. The self-assessment instrument was comprised of 10 assessment items and 5 open-ended questions. The Rasch rating scale model in combination with the Wolfe and Chiu procedure was used to evaluate data provided by the instrument.

Outcomes

Results: Results demonstrated that *curriculum vitae* development was listed most frequently as the topic/concept to be most useful to students' professional development. Further, the ability of students to self-assess their learning needs improved as a result of the seminar. In addition, there was an increased student development of interpersonal communication skill and self confidence in that skill. The last major finding demonstrated that, overall, students enjoyed and learned from invited guest speakers. In particular, residency pharmaceutical industry opportunities were noted as favorites among the students. Since its inception, over sixty students have participated in this seminar pedagogy. This study was published in the *American Journal of Pharmaceutical Education* 2004;68(#3):Article 64.

Conclusion: This pedagogy described as an advising strategy has successfully nurtured pharmacy students in the development of their performance-based skills in a manner that was structured and time-efficient.

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Preparation for and Success in Academic Careers in Pharmacy

Area of Successful Practice: Mentoring Faculty on Teaching Issues

Conversations about Teaching

Description

The accrediting body of academic pharmacy, the Accreditation Council for Pharmacy Education, has challenged each college to have an organized professional development program for its faculty. Specifically, the professional development program “should enhance teaching and assessment skills and should assist faculty in efforts to become and remain productive scholars.” In response to this challenge, in September, 2002, a “Conversations about Teaching,” series was created to allow interested UIC College of Pharmacy faculty the opportunity to discuss, explore, and reflect on various teaching topics (e.g., how to create course behavioral objectives, how to write examination questions, how to write letters of recommendations) in a relaxed, informal, interactive format. Each semester since that time, this series meets weekly for 60-90 minutes as a means to foster support between interested faculty informally. At the beginning of each semester faculty complete a needs assessment to identify topics for the subsequent sessions. Weekly attendance is voluntary and faculty are encouraged to attend whenever their schedules permit. The intent of the investigators is to come alongside participating faculty to help them focus their effort toward their professional development and improvement of their teaching within the classroom, clinic, and other learning environments. Because this approach to faculty development in academic pharmacy is unique, it was important to assess the value of the “Conversations,” series as a means to improve future offerings of it and to share its impact with others throughout the academic pharmacy community. Thus, a survey instrument was developed and yielded information demonstrating positive faculty outcomes.

Outcomes

Results: Using Rasch Analysis, the results demonstrated that the majority of the participating faculty considered teaching to be very important, and yet, they indicated that their previous mentoring in the area of teaching has been “wholly inadequate,” the very reason why “Conversations in Teaching” was developed. Further, faculty, who attended “Conversations,” reported that they devoted a minimum of 50% of their time to teaching activities. This is a high percentage of one’s time devoted to an area in which they have very little guidance or training. In addition, all faculty were aware of their own personal growth as they reflected on their teaching, and as an added dividend, they perceived that their teaching skills improved.

Conclusions: The “Conversations in Teaching” series has been a positive, successful experience for those faculty who have participated to date. Faculty, seasoned and new, wanted some form of mentoring to guide them in their teaching. When performed in a safe and informal atmosphere faculty responded in a positive and constructive manner that encouraged and improved their academic development.

The authors also conclude that successful mentoring, kept simple and informal, needed only a time and place where a discussion about teaching could occur. Further, the construction of “Conversation” was facilitated by having concrete and abstract topics for discussions, thereby, allowing the faculty to enter the interaction at their own comfort level. In addition, the data analysis supported that pharmacy faculty, who self-selected to become part of the “Conversations in Teaching” experience were very committed to their teaching and to its improvement. Lastly, the current trend is to hire new faculty in schools/colleges of pharmacy upon completion of residency training. It is increasingly important to

emphasize to them that there exists a cadre of faculty mentors and/or programs such as “Conversations” to welcome them, ease their adjustment, and guide them at this critical time in their faculty development.

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Preparation for and Success in Academic Careers in Pharmacy

Area of Successful Practice: Professional development strategies and Use of faculty teaching portfolios

Description

In fall 2004, a department-based faculty development program was offered to all pharmacy practice faculty. The program was specifically designed to address the professional development needs of those faculty hired by the college within the past 4 years. A needs assessment of the faculty, and a comprehensive review of the literature, were initially conducted to determine the optimal content and format of the program. Based on the results of the internal survey of the faculty and a review of nationally conducted, published surveys of pharmacy faculty, the program was designed to address three fundamental areas of professional development: to promote individual scholarship, to provide opportunities for growth and improvement in instructional development, and to enhance organizational/professional service development. In particular, the program was developed to enable the faculty member to meet his/her own professional goals in the areas of scholarship, teaching and service as documented in an individualized, reflective teaching portfolio compiled during participation in the yearlong program.

The program was designed to offer an interactive forum of discussion for the faculty on a monthly basis. A total of eight sessions, each 1.5 hours in duration, were developed to be offered throughout the academic year. Each session focused on a specific theme. The themes chosen for discussion were: introduction to academic pharmacy; the academic literature and the teaching portfolio; large classroom teaching strategies including active learning; service to the college community; assessment with a focus on exam writing; experiential education and assessment techniques in experiential education; development and execution of a scholarship plan, and the journey to promotion. Prior to each session, the participants were given a number of readings pertinent to each topic of discussion with a number of focus questions on the readings, as well as session objectives. During the sessions, faculty were engaged in various interactive activities including brainstorming exercises (e.g., what are the major challenges in your role as a practice faculty member?), open discussions of the readings (e.g., How does the teaching philosophy exemplified in the reading relate to your teaching philosophy?), and mini-workshops on selected topics conducted by senior faculty. At the close of each session, the participants were provided with recommended post-session activities by which to further demonstrate their growth and development in each thematic area. Participants were encouraged to share their progress in each area of development at the subsequent session. Senior faculty were also encouraged to attend the sessions to share their experiences and to offer mentoring.

The first session of the program was offered at the start of the fall semester to coincide with the timing of submission of the faculty member's individualized growth plan (IGP), a document used as part of the performance appraisal process. The IGP describes the faculty member's goals for the year in the areas of teaching, service and scholarship and his/her strategies for achievement of these goals. At the start of the faculty development program, each participant was provided with a professional presentation folder to be used as a portfolio. During the ongoing faculty development program, the participants were asked to use the portfolio to document and demonstrate their progress relative to their individualized goals in the areas of teaching, service and scholarship. Inclusion of reflections on their progress in each professional development area was also encouraged. Prior to completion of the program, each participant's portfolio will be reviewed by the program coordinators using a standardized rubric as a formative assessment technique. The focus of the assessment will be on the level of progress made by each participant toward achieving his/her individualized goals as described in the IGP and demonstrated in the portfolio.

The participants are asked to assess each session and to provide a midpoint and summative evaluation of the program. Upon completion of the program, participants will be asked to complete a self-assessment survey in an attempt to quantify the impact of the program on their professional development.

Outcomes

The outcomes of the program have yet to be determined. Based on the evaluations of those sessions completed thus far, the participants' feedback is largely positive. It is anticipated that the program will improve the productivity and quality of life of the faculty member by establishing a supportive environment, increasing one's knowledge of the expectations of a practice faculty member and increasing the opportunity for collaboration among practice faculty. Attempts will be made to identify whether the participants will be better equipped to develop and execute an individualized growth plan consistent with the goals and mission of the school of pharmacy. At the end of the yearlong program, each faculty member will have developed an individualized, reflective teaching portfolio that documents accomplishments in the areas of scholarship, teaching, and service. Faculty will be encouraged to build upon and expand their portfolio as they progress in their academic careers and potentially toward promotion.

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Preparation for and Success in Academic Careers in Pharmacy

Area of Successful Practice: Professional development strategies and/or programs

Residency Teaching Workshops

Description

New clinical pharmacy faculty often have had little or no preparation for teaching when they enter their first academic position. In addition, pharmacy residents sometimes do not consider an academic career because they do not have enough familiarity with teaching. A teaching component of a pharmacy residency can help to accomplish two goals: to help first year faculty be more effective in their teaching careers, and to encourage residents to consider a career in pharmacy education.

Since 1994 the St. Louis College of Pharmacy has offered a teaching training program for pharmacy residents at the College and within the St. Louis area. Approximately 15 to 20 residents participate each year. The program was conducted by Michael Maddux and Thomas Zlatic from 1994 – 2002, and by Brenda Gleason, Sara Lanfear, and Thomas Zlatic from 2003 to the present.

The full-year program consists of two components. In the Fall, residents participate in nine two-hour teaching workshops in active learning and ability-based education. In the Spring, residents apply what they learned in the workshops by teaching four hours (two class periods lasting two hours each) in an Evidence-Based Cardiovascular Medicine elective offered to students in the last semester of their didactic coursework.

In the workshops, residents study recent history and theory regarding pedagogy in pharmacy education, including the “ACCP Background Paper II” from the Commission to Implement Change in Pharmacy Education. Residents learn to organize a course according to the four steps of ability-based education: create ability outcomes, devise practice opportunities for the outcomes, establish criteria by which to evaluate performance, and provide formative feedback so that students can improve in the next performance. The workshops themselves are constructed on an ability-based model: residents construct the teaching materials they will use in the Evidence-Based Cardiovascular Medicine elective, submit and/or perform what they have constructed, and receive peer and expert assessment both prior to and after their teaching in the Spring elective.

The teaching materials the residents produce in the teaching workshops include a directed reading handout (for class period one), a study guide handout (for class period two), lecture materials, active learning strategies, practice opportunities for abilities, assessment methods, and two module scripts.

The logic of the elective course in the Spring is that students prepare approximately two hours of homework so that they can achieve the basic knowledge needed within each module. The residents in the modules then strive to teach students to use that knowledge in the development of the course ability outcomes: thinking and decision making (specifically to select and recommend drug therapy and to evaluate drug therapy) and communication (specifically to educate health care practitioners). Particularly for the second class period, residents create a number of active learning strategies so that students can practice the abilities. At least one of the activities is graded. The residents assign points to the homework and provide assessment feedback to the students on their performance. Finally, the residents also create midterm and final examination patient cases that are ability-based.

At the completion of the nine 2-hour teaching workshops, residents have created a preliminary draft of all the materials they will employ in the Cardiology elective. Two weeks prior to their teaching, they meet with the teaching workshop coordinators to fine-tune their scripts, lectures, handouts, practice opportunities, and assessments. The workshop coordinators attend the teaching modules and provide written and oral feedback to the residents, and each resident prepares a self-assessment. After both of

their teaching modules have been presented, residents and workshop coordinators meet to discuss the self and expert assessments.

Outcomes

We have found that residency candidates pursuing possible careers in academia are drawn to residency programs affiliated with the St. Louis College of Pharmacy, in part because of the residency teaching program available here. In course evaluations for the cardiology elective, students report that they learned a great deal and enjoyed the course. Pre and post surveys indicate that the residents value the teaching component of their residencies. Anecdotal information from past participants indicate that by participating in the program, they are able to gain a better appreciation and understanding for both abilities based education and academic careers. Regarding residents who have gone on to take teaching positions, employers have remarked that “graduates” of this teaching program have been better prepared for faculty positions than other entry level academicians who had no formal training.

The program continues to expand across the St. Louis metropolitan area, as the number of residents participating continues to increase. In 2004, of the 21 residents who participated in the residency teaching program, 17 applied for professional positions following that residency year (4 did a second year of training) and at least 6 of the 17 went on to take a faculty position. An added benefit is that 17 of the current College faculty participated in the resident teaching program, which has been very helpful in the provision of an ability-based curriculum.

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