7-1-2015

Examining Pharmacy Students' Perceptions Of Clinical Faculty Mentoring Characteristics Influencing Students' Decision To Pursue A Pharmacy Residency

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EXAMINING PHARMACY STUDENTS' PERCEPTIONS OF CLINICAL FACULTY MENTORING CHARACTERISTICS INFLUENCING STUDENTS' DECISION TO PURSUE A PHARMACY RESIDENCY

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A DISSERTATION

Presented to the Faculty of

The Department of Education in the College of Arts and Sciences
at the University of New England

In Partial Fulfillment of Requirements

For the Degree of Doctor of Education

Portland & Biddeford, Maine

July, 2015

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August 2015

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Abstract

The field of pharmacy is changing from a drug-distribution-centered model to a patient-centered integrated model whereby pharmacists are actively involved in patient care as part of an interdisciplinary team. To address the estimated pharmacy leadership crisis in the future and to prepare pharmacists to work in the changing healthcare landscape, national pharmacy organizations such as the American Society of Health-System Pharmacists (ASHP) and the American College of Clinical Pharmacy (ACCP) have stated that postgraduate pharmacy residency should be mandatory by 2020. Past pharmacy research literature has shown that while many factors influence students to pursue a pharmacy residency, there is a lack of understanding about the influence of clinical faculty mentoring on students to pursue a postgraduate residency. This phenomenological study explored pharmacy students' experiences with clinical faculty mentoring in relation to Professional Year 4 (PY4) students' decision to pursue a pharmacy residency.

The research was conducted utilizing ten students from two Northeastern Schools of Pharmacy. Qualitative data was collected via interviews using semi-structured open-ended questions. Data from the interviews gathered from both sites were merged for data analysis.

Results showed the emergence of seven themes with connected elements: (a) type of mentoring relationship, (b) mentoring functions, (c) mentor characteristics, (d) mentee characteristics, (e) time spent with mentor, (f) decision-making, and (g) need for formal mentoring programs. Findings indicated that PY4 students' decision to pursue a pharmacy residency does relate to clinical faculty mentoring even though the types of influential clinical faculty mentoring experiences varied. Psychosocial mentoring functions were utilized by clinical faculty that provided positive experiences for participants and allowed for transformative growth. Mentor and mentee characteristics were important in supporting the mentoring process. Time spent with mentors could not be quantified and the quality of time spent with mentors was important. The central finding that clinical faculty mentoring does influence students' decision to pursue a pharmacy residency fills a gap in pharmacy mentoring literature.

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Doctor of Education
Educational Leadership

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ACKNOWLEDGEMENTS

Vincit qui se vincit: He conquers who conquers himself. – Publilius Syrus

I would like to take this moment to thank my husband for his encouragement to start this journey. This is for my kids.

Thank you to my dissertation committee for agreeing to assist me in this journey. Your expertise and invaluable feedback are what helped me complete this dissertation. To Dr. Carey Clark, thank you for your advice and feedback, especially regarding my decision to focus on a qualitative study. To Dr. Michelle Collay, thank you for convincing me to stick with the program until the end. To Dr. James Culhane, thank you for putting me in touch with the right people to conduct my pilot study, which started this whole process.

Special thanks to Dr. Anne Lin, Dr. Bernard Graham, Dr. Edward Foote, and Christina Koerber for their advice and help.

To my team members and cohort in this EdD program, thank you all for the great memories we have shared during these last three years. Best of luck to everyone. Last but not least, thank you to Dr. Michael Ehringhaus for your support and mentorship throughout this dissertation journey.

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CHAPTER 1

INTRODUCTION

In 2005, White predicted that there would not be enough pharmacy leaders to fill the leadership and management positions in the future. While the pharmacy workforce demand exceeded supply in 2000, supply now exceeds demand, some of which can be attributed to the growth of new pharmacy schools and the expansion of existing programs (American Society of Health-System Pharmacists [ASHP], 2014). While the pharmacist shortage has now abated, concerns about the quality of pharmacy education in preparing new graduates to work in the field continue to exist (ASHP, 2014). Due to this concern, it is the position of ASHP that one of the ways to cultivate future pharmacy leaders is through a pharmacy residency program.

Pharmacy residencies provide the postgraduate leadership training necessary to run complex healthcare organizations. According to ASHP (2012), Postgraduate Year 1 (PGY1) residents obtain competencies and leadership skills that will help them grow beyond an entry-level professional. Through pharmacy residency programs, competencies in patient-centered care and pharmacy operations are developed. Residents learn how to manage and improve the medication-use process, manage projects, demonstrate medication therapy management, and work collaboratively with interdisciplinary teams in order to accelerate their growth in leadership. ASHP and the American College of Clinical Pharmacy (ACCP) have stated that postgraduate residency should be mandatory to meet the demands of the changing pharmacy profession, with both organizations delineating that such a goal should be reached by 2020 (ASHP, 2014; Murphy et al., 2006).

Bucci, Knapp, Ohri, and Brooks (1995) studied factors motivating pharmacy students to pursue residency and fellowship training. The residents and fellows cited, "to gain knowledge and experience" (p. 2698), as their leading reason to pursue postgraduate training. An updated study by McCarthy and Weber (2013) found that residency and fellowship training were considered prerequisites for certain jobs. This perception was more important compared to the original study by Bucci et al. (1995). The residency brochure supplied by ASHP (n.d.) reinforces this perception. It states that a residency will help a candidate get the job by qualifying one "for positions that require residency training, a growing trend in hospitals and health systems" (ASHP, n.d., p. 3). The 2014 National Match Results from ASHP seem to support this. "Obtaining a residency continues to be competitive. This year 1,502 individuals seeking PGY1 residencies did not match, and only 222 PGY1 positions remained unfilled post match" (ASHP Accredited, 2014, p. 2). There was a 5.3% increase in PGY1 applicants overall from 2013. Despite a 5.8% increase in filled positions from 2013, a large number of applicants remained that did not match (ASHP Accredited, 2014). The competitive trend continued with the 2015 National Match Results. There were 1,547 participating applicants who did not match for PGY1 residencies (National Matching Services, 2015a) and 270 PGY1 positions were unfilled post match (National Matching Services, 2015b).

A study of pharmacists' perspectives on postgraduate training also highlighted the perception that completing a residency is required for certain jobs. Seventy percent of the pharmacists surveyed believed that they would not have obtained their first position without completing a residency (Komperda & Padiyara, 2011). However, gaining a pharmacy residency has become increasingly competitive in light of the current economic downturn. Furthermore, projections indicate that not enough residencies will be available for all graduating students by

2020 (Johnson, 2008). At the same time, entry-level jobs in hospitals increasingly require residencies. For those students who want to work in a hospital setting, completing a residency has become an imperative.

In studies evaluating factors motivating pharmacy students to pursue residency training, researchers found that some form of mentoring was important (Bucci, Knapp, Ohri, & Brooks, 1995; Fit, 2005; McCarthy & Weber, 2013; McCollum & Hansen, 2005). While studies have been done about mentoring in pharmacy, the majority of them have focused on faculty mentoring in the academic setting (Eiland, Marlowe, & Sacks, 2014; Fuller, Maniscalco-Feichtl, & Droege, 2008; Haines & Popovich, 2014; Kohn, 2014; MacKinnon III, 2003; Metzger et al., 2013; Taylor & Berry, 2008; Zeind et al., 2005) and on encouraging students to pursue research and graduate school (Kiersma et al., 2012; Melton, Noureldin, Villa, Kiersma, & Plake, 2014). More mentoring literature in pharmacy education is needed in order to know how best to use mentoring to encourage pharmacy students to pursue postgraduate pharmacy residencies.

Statement of the Problem

Completing a pharmacy residency has become essential for pharmacy graduates to qualify for pharmacy jobs in hospitals and health systems that are increasingly requiring residency training. While there are many factors that influence students to pursue a pharmacy residency, there has been a lack of an in-depth look at the role of clinical faculty mentoring in influencing students to pursue postgraduate residency.

Purpose of the Study

The purpose of this study was to explore the Professional Year 4 (PY4) pharmacy students' experiences with clinical faculty mentoring in relation to their decision to pursue a pharmacy residency. In an effort to examine the protégé's perception of the mentor and

mentoring experiences, this study examined five key concepts of mentoring and how they influenced students at two pharmacy schools who had chosen to pursue postgraduate pharmacy residency. A qualitative study design allowed a better understanding of students' mentoring experiences by clinical faculty.

Research Questions

This study was designed to answer the following research questions:

1. Does Professional Year 4 (PY4) students' decision to pursue pharmacy residency relate to mentoring from clinical faculty?
2. What clinical faculty mentoring experiences are influential in pharmacy students' decision to pursue postgraduate residency?
3. What factors in the mentoring relationship between clinical faculty and pharmacy students are influential in pharmacy students' decision to pursue pharmacy residency?
4. What are the perceptions and experiences of protégés in regards to psychosocial mentoring functions utilized by clinical faculty?
5. From the perspective of pharmacy students, what are the perceived personal qualities of clinical faculty that are influential in their decision to pursue postgraduate clinical training?

Definition of Terms

The following terms and definitions were used in this study:

Acceptance-and-confirmation: Defined as ongoing respect and support portrayed by mentor(s) that strengthen a protégé's self-confidence and self-image (Kram, 1985).

Clinical faculty: Defined as an assistant professor, associate professor, or professor from the pharmacy practice department in a college or school of pharmacy.

Counseling: Defined as the "psychosocial function that enables an individual to explore personal concerns" (Kram, 1985, p. 36) whereby mentor(s) act as a sounding board by demonstrating active listening and providing feedback (Kram, 1985).

Formal mentoring: "Formal mentorships are programs that are managed and sanctioned by the organization" (Chao, Waltz, & Gardner, 1992, p. 620).

Friendship: Defined as the mutual liking and understanding that extends beyond the daily work environment whereby experiences that occurred about work or outside work are shared with one another (Kram, 1985).

Informal mentoring: "Informal mentorships are not managed, structured, nor formally recognized by the organization. Traditionally, they are spontaneous relationships that occur without external involvement from the organization" (Chao et al., 1992, p. 620).

Mentee: For the purpose of this dissertation, mentee and protégé will be interchangeable. See protégé definition.

Mentor: "A person who is perceived to have greater relevant knowledge, wisdom, or experience" (Bozeman & Feeney, 2007, p. 731). For the purpose of this study, the mentor is further defined as someone who provides professional development.

Mentoring: "Mentoring is an intense developmental relationship whereby advice, counseling, and developmental opportunities are provided to a protégé by a mentor, which, in turn, shapes the protégé's career experiences. . . . This occurs through two types of support to protégés: (1) instrumental or career support and (2) psychosocial support" (Eby, 1997, p. 126).

Protégé: According to Bozeman and Feeney (2007), a protégé is a person perceived to have less relevant knowledge, wisdom, or experience than the mentor. For the purpose of this dissertation, protégé and mentee will be interchangeable.

Psychosocial functions: "Those aspects of a relationship that enhance an individual's sense of competence, identity, and effectiveness in a professional role. These functions include role modeling, acceptance-and-confirmation, counseling, and friendship" (Kram, 1985, p. 32).

Role modeling*:* Defined as attitudes, values, and behaviors that mentor(s) demonstrate in aiding protégés to achieve competence, confidence, and a clear professional identity (Kram, 1985).

Conceptual Framework

In this research, social constructivism is the interpretive framework that was used whereby "multiple realities are constructed through our lived experiences and interactions with others" (Creswell, 2013, p. 36). Emergent ideas were obtained through interviews. The qualitative approach to inquiry was phenomenology. "A *phenomenological study* describes the common meaning for several individuals of their *lived experiences* of a concept or a phenomenon" (Creswell, 2013, p. 76, emphasis in original). The phenomenon in this study was mentoring, and data was collected from participants who have experienced this phenomenon. The five key concepts that were explored included the following: (a) the informal experiences students have with the clinical faculty member mentors, (b) the type of mentoring relationship (positive or negative), (c) psychosocial mentoring functions, (d) mentor and protégé characteristics, and (e) time spent being mentored. The study explored the influences of these factors on students' decision to pursue a pharmacy residency.

Assumptions and Limitations

The underlying assumption of this study is that clinical faculty mentoring influences a student's decision to pursue a pharmacy residency. Another assumption is that completion of a pharmacy residency will lead to positive leadership development and contribute to stronger leadership in the field of pharmacy, especially in a hospital setting. It is assumed that participants in this study answered all of the interview questions openly and honestly. Additionally, it is the researcher's personal assumption that positive mentoring experiences provide beneficial results that lead to a successful career and professional satisfaction.

A limitation of this study is that the in-depth experiences of participants are not necessarily representative and generalizable to the entire population. An additional limitation is that other factors, not explored in this study, could have affected a student's desire to pursue a pharmacy residency.

Significance of the Study

Findings from this study will be useful to pharmacy schools, pharmacy students, and other health professions. Pharmacy schools that have formal mentoring programs can use the information to adjust their mentoring programs such as reassigning mentors and protégés based on the findings about the mentoring relationship. Schools that do not possess such a program can use the information to start one. Students would be interested to know what types of mentors and what kind of mentor/protégé relationship can help motivate them to pursue a residency if they are tentatively considering such a path. The results from this study will also add to the growing body of literature focused on mentoring in pharmacy education. Furthermore, the findings will be applicable and beneficial to various organizations in business, education, and healthcare by

providing more insight into the mentoring relationship. Promoting such relationships can lead to greater career success for both mentor and protégé.

Conclusion

The purpose of this study was to examine clinical faculty mentoring characteristics that influence students' decision to pursue a pharmacy residency. In Chapter 2, the relevant literature about mentoring will be presented. Chapter 3 will discuss the methodology of the study. Chapter 4 will present the results, and the conclusions in Chapter 5 will offer the researcher's interpretation of the findings.

CHAPTER 2

LITERATURE REVIEW

The following literature review provides background on the importance of leadership and residency, studies of motivating factors to pursue a pharmacy residency, the historical context of mentoring, studies examining mentoring in pharmacy, and the key concepts of mentoring that were explored in this study.

Leadership and Residency

The field of pharmacy is changing. The National Pharmacy Initiative will move from a drug-distribution-centered model to a patient-centered integrated model (University HealthSystem Consortium, 2010). The goal of this movement is for pharmacists to become more engaged in developing therapeutic plans for patients as part of an interdisciplinary team. Pharmacy leadership in the hospital setting is necessary during this important transition. The American Society of Health-System Pharmacists (ASHP) Foundation Scholar-in-Residence report by White (2005)−a report based on data collected from online surveys sent to pharmacy directors, pharmacy middle managers, current pharmacy practitioners, pharmacy students, and employers recruiting for management positions using ASHP's membership−predicted pharmacy leadership would be lacking over the next 5-10 years. The anticipated major turnover of directors and middle managers without enough pharmacy students and practitioners interested in filling those positions would precipitate a leadership crisis in pharmacy. With this crisis in mind, White (2005) stated that "mentoring and residencies are important methods of fostering new leaders in the profession" (p. 855).

White and Enright (2013) conducted a 7-year follow-up assessment of White's 2005 study. They found that despite the economic recession and the passage of the Affordable Care Act, which is changing the landscape of healthcare, data from those surveyed were remarkably similar to White's 2005 findings. White and Enright (2013) concluded that even though the pharmacy leadership crisis has been slightly mitigated, the potential for its occurrence over the next 10 years continues to exist.

In a commentary article, Ivey and Farber (2011) stated that while the PGY1 residency helps increase the skills and competency of pharmacists in a clinical setting, it does not help to create a leader who is well-versed in the business operations of a complex pharmacy department of a healthcare organization. However, a Postgraduate Year 2 (PGY2) residency in health-system pharmacy administration would provide this knowledge and expertise. On the other hand, the authors felt that the core experiences required in a PGY1 residency should include operational as well as clinical experiences in order to help integrate the skills necessary to run a complex organization.

Further support to incorporate more practice management and leadership activities during the PGY1 year can be found in a study by Doligalski, Verbosky, Alexander, Kotis, and Powell (2014). The authors stated that despite many residency programs incorporating practice management rotations in order to develop a more structured leadership experience for pharmacy residents, these programs lacked defined standards. As such, the pharmacy residency experiences varied widely. After surveying practice management preceptors and PGY1 residents nationwide, the authors found "that no standard of practice exists regarding practice management and leadership training during the PGY1 year" (Doligalski et al., 2014, p. 250). Yet, despite the lack of standards, Shannon, Bradley-Baker, and Truong (2012) noted that postgraduate pharmacy

residencies are “highly encouraged by some professional pharmacy organizations, colleges and schools of pharmacy, and employers” (p. 2). Sinnett (2013) echoed support for residency-trained and credentialed pharmacists. Sinnett (2013) stated:

> A residency-trained and appropriately credentialed pharmacist workforce is better equipped to understand the organizational environment called a health system and can work in that environment to provide clinical care to individual patients. Better yet, they understand the workings of the local environment (ie, [*sic*], interdisciplinary rounds) and are more able to maneuver there at both an organizational and clinical level. (p. 159, emphasis in original)

According to ASHP’s (2012) Accreditation Standard PGY1 Pharmacy Residency Programs, exercising leadership and practice management are part of a set of competencies that residents will acquire. In order to meet this accreditation standard, Fuller (2012) described how leadership development activities were incorporated into pharmacy residency training at the Nebraska Medical Center. This new Leadership Development Series introduced pharmacy residents to different leadership theories, were able to become more self-aware of their strengths and communication styles, and learned how to resolve conflicts. Subjective reporting by residents indicated that the series was a valuable part of their training (Fuller, 2012).

Leadership training has also been developed in some pharmacy schools. Sorensen, Traynor, and Janke (2009) described how a pharmacy course on leadership and leading change was developed and implemented on two campuses at the University of Minnesota College of Pharmacy. The course included didactic, experiential, and self-directed activities designed for students to develop a better understanding of leadership and to practice leadership skills.

Students reported that the course was useful in preparing them to be leaders of change once they become pharmacists (Sorensen et al., 2009).

To fulfill pharmacy leadership needs in the coming years and to meet the changing demands of the pharmacy work force in hospitals and health systems, several well-known pharmacy organizations have acknowledged the need for postgraduate residencies (ASHP, 2007; Murphy et al., 2006). The American Society of Health-System Pharmacists (ASHP, 2007) established its long-range vision in 2007 to meet the changing demands of healthcare. It is the organization's position that postgraduate residencies provide newly graduated pharmacists with the knowledge and skills needed to successfully work in hospitals and health systems. In its 2009-2013 education and training policy positions, ASHP stated that one of its goals is that by 2020, all new pharmacy graduates will be required to complete an ASHP-accredited PGY1 residency (ASHP, 2014).

ACCP released a position statement in 2006 in which part of its strategic plan included the vision of requiring postgraduate residency training as a prerequisite for pharmacy practice in direct patient care (Murphy et al., 2006). However, according to Johnson (2008), there may not be enough residency positions available for the increased number of pharmacy students in the future. Johnson's prediction is further supported by the statistics supplied by the ASHP Resident Matching Program. In the 2010 ASHP Resident Matching Program, 2915 applicants sought PGY1 residencies (National Matching Services, 2015d) but only 1951 PGY1 positions were available (National Matching Services, 2015e). In the 2015 ASHP Resident Matching Program, 4358 applicants sought PGY1 residencies (National Matching Services, 2015f) but only 3081 PGY1 positions were available (National Matching Services, 2015g). The 964 placement gap from 2010 grew to 1277 in 2015. These numbers show that the demand for residency training

has grown and exceeds the number of positions available. Hence, competition for pharmacy residencies is becoming fiercer and the residencies are more difficult to attain.

Motivating Factors to Pursue Pharmacy Residency

In a survey study of the factors motivating pharmacy students to pursue residencies conducted by Bucci et al. (1995), two of the three most frequently cited reasons for pursuing a pharmacy residency were to gain knowledge and experience, and a desire for specialized training. Residents and fellows who responded to the survey indicated that important factors influencing pharmacy students to pursue residency and fellowship training included contact with role model pharmacists, faculty stressing the importance of residency training, interaction with residents or fellows while in clerkships or throughout pharmacy school, advisors stressing the importance, and talking with fellow students. Respondents also perceived that their classmates chose not to pursue a residency or fellowship based on individuals advising them that residencies or fellowships were not necessary and a lack of individuals who could provide feedback and answer questions. Fit (2005) also found similar reasons for pursuing residency training from surveys administered to pharmacy residents at the Fall 2004 Chicagoland Residency Conference hosted by the Midwestern University Chicago College of Pharmacy.

A study replicating Bucci et al. (1995) was recently published by McCarthy and Weber (2013). While gaining knowledge, experience, and a desire for specialized training continued to be important factors in a resident's and fellow's decision to pursue postgraduate training, the authors noted that residents and fellows "now seem to be motivated to pursue residency and fellowship training because they believe that it is a prerequisite for certain jobs" (McCarthy & Weber, 2013, p. 1401). Like Bucci et al. (1995), respondents to the surveys in the study by

McCarthy and Weber (2013) also indicated that the various types of mentoring experiences or lack of them were important factors or barriers in their decision to pursue postgraduate training.

McCollum and Hansen (2005) conducted a study using 2003 and 2004 graduates of the University of Colorado Health Sciences Center School of Pharmacy. The graduates were administered exit surveys, in which students cited factors that influenced their decision to pursue (10 items) or not pursue (5 items) residency training. Interactions with a preceptor (ranked 6) and interactions with faculty member (ranked 8) were factors affecting their decisions to pursue residency training. While the studies by Bucci et al. (1995), Fit (2005), McCarthy and Weber (2013), and McCollum and Hansen (2005) indicated that mentoring experiences were important factors affecting students' decision to pursue residency training, there has been a lack of studies that have focused on clinical faculty mentoring of students. This study researched the characteristics of clinical faculty mentoring that are important in fostering a student's desire to pursue a pharmacy residency.

Mentoring: Historical Context

The word *mentor* stems from the character Mentor in Homer's *Odyssey*. While Odysseus was away fighting in the Trojan War, his friend Mentor helped his son Telemachus develop into an adult (Gough, 2008). Despite this historical context, there is no universal accepted definition of mentoring. According to Bozeman and Feeney (2007), multiple definitions of mentoring exist, many of which are based on the foundational work by Kram (1983, 1985).

In the seminal book, *The Seasons of a Man's Life*, Levinson, Darrow, Klein, Levinson, and McKee (1978) explored the impact of mentoring on men's development during their adult years. Shortly thereafter, according to Bozeman and Feeney (2007), "Kathy Kram's (1980) dissertation and her 1983 *Academy of Management Journal* article provided a beginning to the

contemporary research tradition" (p. 721, emphasis in original). It was Kram's work that laid the foundation for the mentoring research that followed. Based on interviews of 18 younger and older managers who worked together in a corporate setting, Kram (1983) conceptualized mentoring as a relationship consisting of four phases:

> An *initiation* phase, during which time the relationship is started; a *cultivation* phase, during which time the range of functions provided expands to maximum; a *separation* phase, during which time the established nature of the relationship is substantially altered by structural changes in the organizational context and/or by psychological changes within one or both individuals; and a *redefinition* phase, during which time the relationship evolves a new form that is significantly different from the past, or the relationship ends entirely. (p. 614, emphasis in original)

Kram (1983) further noted that the mentor relationship served two purposes: (a) to enhance career development, and (b) to enhance the psychosocial functions of both individuals.

Kram's conceptualization of the mentoring relationship influenced subsequent research, most of which has focused on positive career outcomes for protégés (Allen, Eby, Poteet, Lentz, & Lima, 2004; Noe, Greenberger, & Wang, 2002; Wanberg, Welsh, & Hezlett, 2003). In a meta-analysis conducted by Allen et al. (2004), the authors concluded that mentored individuals had more satisfying career outcomes (compensation, salary growth, promotions, and career, job, and mentor satisfaction) than those not mentored. Psychosocial analyses by Allen et al. (2004) also showed that psychosocial mentoring was related to career outcomes.

Research has been conducted on the benefits of mentoring on career outcomes when gender (Burke & McKeen, 1996, 1997; Ragins, 1989; Ragins & Sundstrom, 1989; Scandura & Ragins, 1993) and race (Ragins, 1997a, 1997b; Thomas, 1990) are taken into consideration.

Much of the gender research focused on how mentoring can help women advance in the organization–i.e., break through the glass ceiling (Ragins & Kram, 2007). In terms of race, Ragins and Kram (2007) stated that the glass ceiling is still clearly in effect at the top levels of organizations despite increased racial diversity among the middle and lower levels of organizations.

Despite gender mentoring literature illustrating the difficulties of women moving up the corporate latter, the glass ceiling does not appear to exist for women in pharmacy, according to a working paper published by Claudia Goldin and Lawrence F. Katz in the National Bureau of Economic Research in 2012 (cited in Weiss, 2012). According to Weiss, Goldin and Katz concluded that pharmacy has become the most egalitarian profession in the United States today. Women pharmacists have increased from 8% in 1960 to 55% today (cited in Weiss, 2012). Furthermore,

> Pharmacy pay is also unusually evenly distributed. According to the May 2011 OES, pharmacists have the smallest gap in pay between those at the upper and lower ends of wage distribution of any occupation with average earnings greater than $60,000 and the smallest gap among all health care professions. In addition, between 1970 and 2010, the pay ratio of female to male pharmacists increased from 0.66 to 0.92, a gender earnings gap smaller than for almost any other high-wage profession. (Weiss, 2012, para. 5)

Besides mentoring research focusing on career outcomes, a few studies have focused on personal learning resulting from mentoring relationships. The study conducted by Lankau and Scandura (2002) in a healthcare setting showed greater job learning for individuals with mentors compared to those without. Allen and Eby (2003) investigated learning from the mentor's perspective. They found that mentors reported higher degrees of learning when they perceived

similarities to their protégés. Hirschfeld, Thomas, and Lankau (2006) found that learning by mentors and protégés was influenced by the motivational orientations of both mentors and protégés.

After the foundational publications of Levinson et al. (1978) and Kram (1983, 1985), most of the research has focused on the effects of mentoring on protégés. However, during the past decade, research on mentoring from the mentor's perspective has increased (Ragins & Kram, 2007). According to Ragins and Kram (2007), research on the mentor has focused on "factors that underlie the willingness and motivation to be a mentor to others, factors that mentors consider in their selection of the protégés, provision of mentoring, relationship satisfaction, and the benefits of mentoring others" (p. 124).

LaFleur and White (2010) conducted research exploring the mentor-mentee relationship from the perspective of the mentor and the benefits of mentorship. After completing a literature review of studies related to mentoring, the authors analyzed the research and identified four areas of focus, one of which was mentor benefits. According to the authors, mentor benefits include positive impact on the mentor or mentor's practice, personal satisfaction, professional success, and positive contributions to the mentor's organization and profession. Bellack and Morijikian (2005) also identified mentor benefits and development. In the RWJ Executive Nurse Fellows Program, fellows experienced mentoring from senior-level executives outside of healthcare. The interactions with mentees allowed the mentors greater insight into their own leadership and careers. Mentors shared their leadership successes and failures and provided advice and guidance to their mentees, which helped contribute to the mentors' personal fulfillment. Finley, Ivanitskaya, and Kennedy's research (2007) also identified personal satisfaction as the primary motivating factor for mentors.

The success of a mentor-mentee relationship is dependent on the characteristics of outstanding mentors. In their study, Cho, Ramanan, and Feldman (2011) identified the ideal qualities of a mentor through a qualitative analysis of mentees' nomination letters of their mentors for a lifetime achievement award. The authors found five themes related to the characteristics of outstanding mentors. These five themes included the following: (a) admirable characteristics, (b) the guidance provided to mentees' careers, (c) strength of time commitment, (d) support for personal/professional balance, and (e) legacy of mentoring. Admirable characteristics of mentors fell into two categories: personal qualities and professional traits. The most common words used to describe the mentors' personal qualities were compassionate, enthusiastic, generous, honest, insightful, selfless, and wise. For professional traits, the most common words identified were collaborative, intellectual, skilled clinician, and teacher. These results are similar to those found by Straus, Johnson, Marquez, and Feldman (2013) in their qualitative study exploring characteristics of successful and failed mentoring relationships among two different universities' Departments of Medicine.

Mentoring in Pharmacy

The Accreditation Council for Pharmacy Education (ACPE) Board of Directors released for approval by 2015 updated accreditation standards and guidelines for the professional program in pharmacy leading to the Doctor of Pharmacy degree, with an effective date of July 1, 2016 (Accreditation Council for Pharmacy Education [ACPE], 2014a, 2014b). Under Standard No. 9, Organizational Culture, one of the key elements includes leadership and professionalism (ACPE, 2014a). "The college or school must demonstrate a commitment to developing professionalism and fostering leadership in administrators, faculty, preceptors, staff, and students. Faculty and preceptors must serve as mentors and positive role models for students" (ACPE, 2014a, p. 13).

"To foster harmonious relationships and provide positive role models for students, residents and fellows, the college or school should encourage formal and informal interactions with faculty, administrators, preceptors, and staff" (ACPE, 2014b, p. 9).

ACPE further stated that colleges or schools of pharmacy should provide prospective and current students with information about "opportunities for post-graduate education and training (residencies, fellowships, graduate school)" (ACPE, 2014b, p. 14). Providing "supportive and proactive student services, including mentoring/advising by faculty, preceptors and professional staff" (ACPE, 2014b, p. 16) helps contribute to student success. Sufficient full-time faculty must be available for student advising and career counseling (ACPE, 2014a).

ACPE encourages mentoring for professional growth of both students and faculty. Although there has been research about mentoring pharmacy students to develop an interest in graduate school and research (Kiersma et al., 2012), there has been little research on how student mentoring by clinical faculty affects students' decision to pursue a pharmacy residency. Much of the mentoring studies done in pharmacy pertain to faculty mentoring between senior faculty and junior faculty (Eiland et al., 2014; Fuller et al., 2008; Haines & Popovich, 2014; Kohn, 2014; MacKinnon III, 2003; Metzger et al., 2013; Taylor & Berry, 2008; Zeind et al., 2005), as required by ACPE guidelines.

Research about mentoring faculty members has focused on providing faculty development and professional growth (Eiland et al., 2014; Fuller et al., 2008; Haines & Popovich, 2014; Kohn, 2014; MacKinnon III, 2003; Metzger et al., 2013; Taylor & Berry, 2008; Zeind et al., 2005). According to Desselle et al. (2011), findings from the 2009-2010 Council of Deans-Council of Faculties Joint Task Force on Faculty Workforce identified four interrelated concepts. Two of these concepts pertained to faculty recruitment and retention and mentoring.

The task force identified characteristics of mentors and mentees that best suit the role of mentor and how certain characteristics of mentees facilitate the success of mentoring programs. The task force further provided information on how best to structure a formal mentoring program in a college or school of pharmacy in order to help recruit and retain faculty, increase job satisfaction, and improve productivity.

Hagemeier, Murawski, and Popovich (2013) assessed the influence of faculty mentors on junior faculty members' pursuit of postgraduate training and ultimately a career in academia while completing their Doctor of Pharmacy degree or nonpharmacy undergraduate degree. The authors concluded that mentoring and encouragement from faculty was the most influential factor in the junior faculty members' decision to pursue postgraduate training. At the same time, the authors noted that it was difficult to quantify how faculty/student mentor/mentee relationships directly impacted the junior faculty members' choice to pursue postgraduate training. The study did provide descriptive statistics for factors that influenced junior faculty members' decision to pursue postgraduate training. Experiences such as encouragement from professor(s), encouragement from preceptor(s), work-related experiences, completion of a course in the interest area, introductory/advanced pharmacy practice experiences, encouragement from individuals who were completing the postgraduate training at the time, and participation in teaching activities were found to be very influential.

Current literature on student mentoring involves lessons learned from the implementation of a graduate student-led mentoring program for student pharmacists and pharmaceutical science students to increase students' interest in postgraduate education (Melton et al., 2014), the impact of a graduate student mentoring program on student interest in postgraduate education (Kiersma et al., 2012), and assessing pharmacy students' motivational beliefs in pursuing graduate school

(Hagemeier & Newton, 2010). Melton et al. (2014) concluded that student pharmacists, undergraduate pharmaceutical science students, and graduate students benefited from a graduate student-led mentoring program. The authors further discussed the importance of recruitment, matching both mentors and mentees appropriately, and the engagement and retention of mentor and mentee to the success of the mentoring program. The study by Kiersma et al. (2012) included assessments of undergraduate and pharmacy students' (mentees) perceptions of research, postgraduate training plans, and perception about mentors. Based on respondents' responses to surveys and on qualitative analysis of the results, the authors concluded that a graduate mentoring program may help to develop interest in research. This study also identified the perceptions of undergraduate students regarding mentor qualities, perceptions that ranged from extremely important to not sure on a Likert scale.

While student mentoring is promoted by ACPE, there is a lack of a formal mentoring evaluation model. To address this, Witry, Patterson, and Sorofman (2013) conducted a qualitative study that investigated student expectations and preferences for formal mentoring programs. Their investigation led to the creation of an evaluation model for formal mentoring in pharmacy education. Based on discussions with focus groups, the authors identified emergent constructs. The structures and inputs of the formal mentoring program included organizational culture, program structure, and protégé and mentor characteristics. Formal mentoring processes included mentoring functions and relationship development. Formal mentoring proximal (short-term) outcomes included mentor and protégé change, program satisfaction, and organizational learning. Formal mentoring distal (long-term) outcomes included mentor, protégé, and organizational outcomes. Results showed that through satisfying and productive mentoring, some protégés' skills and attitudes changed. These protégés believed that if they had effective mentors,

they would be more engaged during their time in school and become more involved as part of the alumni after graduation.

The need for and importance of faculty mentoring of students was illustrated in a recently published article. Blake et al. (2015) conducted a study comparing the perceptions of pharmacy practice faculty members and residency directors regarding the relative importance of PGY1 residency interview selection criteria. The authors wanted to identify whether there were characteristics used by the residency selection committees to select residency candidates for interviews. If such characteristics do exist, then how do they compare to pharmacy practice faculty members' advice to students about the selection criteria? Blake et al. (2015) found that both groups reported that GPA, work experience, evidence of leadership, clinical Advanced Pharmacy Practice Experiences (APPE), synergy between candidate's letter of intent and the nature of the residency program, and letters of recommendations were part of the selection criteria. However, the relative importance of these characteristics differed between the two groups. Residency directors perceived GPA, candidate's previous work experience, and the "fit" between the candidate and residency as more important for selecting residents while pharmacy practice faculty overemphasized the relative importance of APPE experiences and underemphasized the relative importance of previous work experiences. Blake et al. (2015) concluded that by better aligning pharmacy practice faculty mentoring of students with the information about the characteristics deemed most important by residency directors, students' success with obtaining residency interviews may be increased.

The results found in Blake et al. (2015) were similar to those found by Pick, Henriksen, Hamilton, and Monaghan (2013). Pick et al. (2013) utilized a survey to examine the characteristics and factors used by residency directors in selecting a pharmacy resident. Results

showed that the interview was the most important factor while letters of recommendation were the second most important factor identified by the residency directors. Past work experience, letters of intent, and GPA were also identified as important factors. The authors noted that the preferred sources for the letters of recommendations were from preceptors and clinical faculty. Pick et al. (2013) concluded that "any faculty who provides mentoring needs to be aware of these factors to assist applicants in the process of securing a residency position" (p. 546).

Mentoring: Key Concepts

Five key concepts of mentoring were examined in an effort to gain a better understanding of Professional Year 4 (PY4) students' perceptions of their mentors and mentoring experiences and how these mentoring experiences influenced the students' decision to pursue postgraduate pharmacy residency. The five key concepts of mentoring are: (a) formal versus informal mentoring, (b) positive versus negative relationship, (c) psychosocial mentoring functions, (d) mentor and protégé characteristics, and (e) time spent with mentor.

Concept 1: Formal versus informal mentoring. Researchers have studied two types of mentoring relationships: formal and informal. Organizations assign formal mentoring relationships for a specified amount of time (Wanberg, Welsh, & Hezlett, 2003) and they are usually shorter than informal relationships (Allen, Day, & Lentz, 2005). Informal relationships develop from mentor-protégé interactions that fulfill the needs of both parties (Allen et al., 2005; Lyons & Oppler, 2004). The nature of the informal relationships may change over time and continue as long as both parties so desire (Chao, 1997; Kram, 1983; Pollack, 1995). Benefits from informal mentoring to the protégé are well established through published research (Allen et al., 2004; Baugh, Lankau, & Scandura, 1996; Fagenson, 1988, 1989; Scandura, 1992).

Due to the positive benefits from informal relationships, organizations began to develop formal programs in an attempt to gain the same benefits from informal relationships (Ragins & Kram, 2007). However, the research has been mixed. Some studies showed differences in vocational support where formal protégés reported less vocational support (Allen et al., 2005; Chao, Walz, & Gardner, 1992; Ragins & Cotton, 1999; Scandura & Williams, 2001) while other studies found no differences (Fagenson-Eland, Marks, & Amendola, 1997; Sosik, Lee, & Bouquillon, 2005; Tepper, 1995). Some studies have also found differences in psychosocial support with formal protégés reporting less psychosocial support than informal protégés (Fagenson-Eland et al., 1997; Ragins & Cotton, 1999; Scandura & Williams, 2001; Sosik et al., 2005), while some found no differences (Allen et al., 2005; Chao et al., 1992; Tepper, 1995).

Concept 2: Positive versus negative relationship. Research has focused primarily on the positive aspects of mentoring, especially regarding the subjective and objective benefits of mentoring for protégés (Allen et al., 2004), the benefits of mentoring for mentors (Eby, Durley, Evans, & Ragins, 2006; Ragins & Verbos, 2007), and the benefits from formal mentoring programs (Eby & Lockwood, 2005; Ragins, Cotton, & Miller, 2000). The amount of research focusing on negative aspects of the mentoring relationship is comparatively less than positive aspects (Ragins & Kram, 2007). Nevertheless, researchers such as Eby and Allen (2002), Eby, McManus, Simon, and Russell (2000), and Eby, Butts, Lockwood, and Simon (2004) have found relational problems in mentoring. They described specific negative mentoring experiences that may have involved sabotage, exploitation, and character issues within mentor and protégé that were defined by overdependence, jealousy, and conflicts of personality.

The understanding of problems in mentoring relationships stems from three bodies of literature research: organizational, student-faculty, and clinical supervisory relationships (Ragins

& Kram, 2007). In all three types, the protégés received both career-related and psychosocial support (Ragins & Kram, 2007). In the student-faculty and clinical supervisory relationships, the mentor imparted technical skills and knowledge in an apprentice-type learning model that cannot easily be learned elsewhere (Jacobi, 1991).

While mentor-mentee relationships can provide the advocacy and resources described above, these relationships may also involve negative experiences and outcomes for mentees. In student-faculty mentoring, faculty's professional indoctrination can have lasting effects on students (Austin, 2002; Ellis, 1992). Problems that may arise from student-faculty mentoring may stem from mismatches in personality, communication styles, and career interests such as research versus practice (Johnson & Huwe, 2002). Furthermore, competing obligations for faculty time reduces faculty members' capability to have high-quality relationships with students. A low commitment to mentoring may be further exacerbated by the lack of rewards at the university level for faculty to cultivate strong mentoring relationships with students (Austin, 2002). This can lead to neglect, which students cited as one of the sources for student dissatisfaction in graduate training (Clark, Harden, & Johnson, 2000).

Some research has been done on problems in clinical supervisory relationships. Problems experienced by supervisees include neglect by supervisor (Magunson, Wilcoxon, & Norem, 2000; Nelson & Friedlander, 2001; Ramos-Sánchez et al., 2002), tyrannical behavior such as scapegoating or sabotage on the part of the supervisor (Magunson et al., 2000; Nelson & Friedlander, 2001), different therapeutic opinions between students and supervisor (Nelson & Friedlander, 2001; Ramos-Sánchez et al., 2002), and lack of ongoing support from supervisors (Gray, Ladany, Walker, & Ancis, 2001; Ramos-Sánchez et al., 2002). Problems with clinical supervisors had a positive correlation with less satisfaction towards the clinical training

experience, reduced career commitment, and in some cases, caused supervisees to change careers (Ramos-Sánchez et al., 2002).

Concept 3: Psychosocial mentoring functions. Kram (1983) identified four psychosocial mentoring functions in a corporate setting: (a) role modeling, (b) acceptance-and-confirmation, (c) counseling, and (d) friendship. In role-modeling, the senior manager's attitudes, values, and behaviors are a source of examples for junior managers (Kram, 1985). The junior manager may model some of the senior manager's style and, at the same time, reject other aspects of it. The success of role modeling is due to the emotional attachment that develops, which is often like a parental relationship. In acceptance-and-confirmation, the senior manager provides support and encouragement. The junior manager who experiences acceptance-and-confirmation is more willing to take risks due to the trust that has formed between a senior manager and a junior manager. In counseling, the junior manager can express his/her anxieties and fears about personal issues. The senior manager is the sounding board and helps the junior manager cope with personal problems through feedback and active listening. In friendship, the mutual liking and understanding extend beyond the daily work environment, whereby experiences that occurred about work or outside work are shared with one another. The friendship allows the junior manager to grow and feel more of a colleague than a subordinate. Benefits to the senior manager include maintaining a sense of vitality during a time when he/she may fear growing old and becoming less valuable to the organization (Kram, 1985).

Through the four psychosocial mentoring functions provided by a senior manager, a young manager can develop a sense of competence, confidence, and professional identity. Benefits to a senior manager include recognition and respect from peers and superiors and internal satisfaction in guiding a mentee at the workplace. These benefits extend beyond the

workplace and have a positive effect on an individual's relationship with significant others (Kram, 1985).

Concept 4: Mentor and protégé characteristics. According to Ragins and Kram (2007), personality influences the effectiveness of mentoring relationships. Schrubbe (2004) stated that important protégé characteristics include ambition, motivation, patience, and willingness to take risks. Murray (2002) suggested that protégés should be enthusiastic, ask questions, and be open to advice from their mentors. Allen (2003) found that mentors were more likely to mentor protégés who were high in ability and willingness to learn. Straus et al. (2013) found that characteristics of effective mentees included being open to feedback, being responsible, adhering to timelines assigned by mentors, and respecting the mentor by being prepared for meetings. The reciprocity of mentoring, mutual respect, clear expectations, personal connection, and shared values were themes identified by Straus et al. (2013) as characteristics of a successful mentoring relationship. Eight themes were identified by Eller, Lev, and Feurer (2014) as key components of an effective mentoring relationship. They included the following: (a) open communication and accessibility, (b) goals and challenges, (c) passion and inspiration, (d) caring personal relationship, (e) mutual respect and trust, (f) exchange of knowledge, (g) independence and collaboration, and (h) role modeling. Desirable qualities of mentees, such as being respectful, trustful, and independent, yet collaborative, are described within each theme.

According to Fawcett (2002), characteristics of a successful mentor include patience, enthusiasm, knowledge, a sense of humor, and respect. More importantly, mentors help their protégés learn about their field and help them advance their careers. Sangole, Abreu, and Stein (2006) noted that people willing to mentor share the following characteristics: (a) commitment to share personal and professional experiences; (b) ability to transfer knowledge, skills, and values;

and (c) ability to promote networking opportunities for the protégé. Murray (2002) identified three important characteristics for the mentor, which included the domains of cognitive (knowledge, experiences, ideas, and skills), affective (personality, attitude, and emotional qualities), and behavioral (role-modeling).

Concept 5: Time spent with mentor. Noe et al. (2002) noted that in informal relationships, the frequency of interaction had a positive effect. To try to create this positive effect between mentors and protégés, formal mentoring programs may set guidelines on the frequency of meetings. However, according to Kowtko and Watts (2008), negative aspects of mentoring programs include "a lack of connection and difficulty in developing a relationship between mentoring pairs" (p. 73). Frequently cancelled meetings between mentors and protégés were a source of concern for both parties involved (Price & Balogh, 2001). A study by Brown and Hanson (2003) found that busy and hectic schedules were a common problem, resulting in difficulty in arranging meetings. This caused much frustration among the mentors and/or mentees (Brown & Hanson, 2003).

Summary

Leadership and pharmacy residency are linked, which has led to pharmacy organizations such as the ASHP and ACCP mandating that pharmacy residencies become mandatory by 2020. While there has been a huge push from national pharmacy organizations for this vision, there is a lack of residencies available for all pharmacy student applicants. The fierce competition for these residency positions has created an urgent need for pharmacy schools to encourage pharmacy students to pursue postgraduate residency earlier in the curriculum. Without residency training, pharmacists may not qualify for the minimum job requirements in the hospital setting or health systems. This can then lead to an unsatisfactory trajectory of their career prospects.

Understanding the mentoring phenomenon in pharmacy education can enable clinical faculty positive means to encourage students to choose to pursue a pharmacy residency.

Past research studying motivating factors for students to pursue a pharmacy residency showed that mentoring was an integral part of a student's decision. However, there is a lack of in-depth research into the effect clinical faculty mentoring has on a student's decision to pursue a pharmacy residency. Based on the seminal works of Kram (1983, 1985), research about mentoring exists today in various fields such as psychology, business, healthcare, and education.

Conceptual Framework

Past research delving into the phenomenon of mentoring in business and healthcare has shown benefits for the protégé. Kram (1985) found that protégés developed professional and personal growth with mentors, especially when career and psychosocial functions were used by the mentors. However, such maturation was dependent on the nature of the mentoring relationship. Informal mentoring relationships have shown benefits, but research into formal relationships has been mixed. Protégés who have negative relationships with their mentors have been shown to be less satisfied with their careers and in some cases may change careers (Ramos-Sánchez et al., 2002). Mentor and protégé characteristics and time spent with a mentor have also been shown to affect mentoring relationships (Allen, 2003; Brown & Hanson, 2003; Eller et al., 2014; Fawcett, 2002; Murray, 2002; Noe et al., 2002; Price & Balogh, 2001; Sangole, Abreu, & Stein, 2006; Schrubbe, 2004; Straus et al., 2013). In order to assess the characteristics of clinical faculty mentoring that have an influence on students' decision to pursue a pharmacy residency, this proposed research focused on the different types of mentoring relationships, psychosocial mentoring functions, mentor and protégé characteristics, and time spent with mentor. The researcher conducted interviews to elucidate and answer the research questions. Findings will

help inform the field about the importance of formal mentoring programs in pharmacy schools and help students in choosing the “right” mentor.

Conclusion

This study assessed the factors in the mentoring relationship and mentoring experiences of the protégés in order to attain an in-depth understanding of how clinical faculty mentoring played a role in influencing students’ pursuit of a pharmacy residency. The findings will be of interest to pharmacy students and pharmacy educators. This research may also be beneficial to organizations outside of pharmacy education that might utilize the information to promote professional development of its employees.

CHAPTER 3

METHODOLOGY

The research reviewed in Chapter 2 indicated that while mentoring relationships can have a positive effect on career-related and psychosocial support of the protégé, negative relationships can sometimes cause protégés to leave their field of work. Mentor character traits such as patience, enthusiasm, knowledgeable, and respecting the protégé had a positive impact on the mentoring relationship. Also, protégés who were enthusiastic and open to advice from their mentor were more likely to find mentors willing to take them under their wings. Frequent time and interactions with the mentors could help promote a positive mentoring relationship.

Because the nature of mentoring is embedded in personal relationships and the intersections of factors influencing mentor-protégé are complex, this research used qualitative inquiry to better understand this complexity (see Appendix A). The researcher focused on the phenomenology of mentoring in pharmacy education. According to Merriam (2009), "a phenomenological approach is well suited to studying affective, emotional, and often intense human experiences" (p. 26). Defining features of phenomenology include the following: (a) an emphasis on experiences of different people to explore a phenomenon, (b) an underlying philosophical assumption that our lived experiences are conscious ones of everyday life, (c) researcher's personal prejudices or assumptions are removed out of the study through the process of bracketing, (d) data collection usually involves interviewing, (e) data analysis moving from narrow to broader units of measure in order to form a composite descriptions of the phenomenon to eventually attain, and (f) the essence of the experience (Creswell, 2013; Merriam, 2009). Based on collected data, themes are analyzed in order to explore a problem and develop a detailed understanding of a central phenomenon (Creswell, 2013). For this study, the researcher

investigated the central phenomenon of clinical faculty mentoring within two pharmacy schools located in two Northeastern cities. These two pharmacy schools will henceforth be known as School of Pharmacy A and School of Pharmacy B.

Chapter 3 describes the design, methods, and procedures of this qualitative study. The chapter is divided into eight main sections: description of the pilot study, setting, population and sample, data collection procedures, instrumentation, data analysis, ethical considerations, and potential limitations of the study.

The Institutional Review Board (IRB) at the University of New England reviewed the protocols and instruments and has exempted this study from IRB review and oversight (see Appendix B). The Chairs of the Institutional Review Boards at the School of Pharmacy A and School of Pharmacy B agreed to accept the decision of the Institutional Review Board at the University of New England (see Appendix C). The deans of both Schools of Pharmacy granted permission to conduct the study at their institutions (see Appendix D).

Pilot Study

A pilot study was conducted in October-December 2014 utilizing the Professional Year 4 (PY4) students at the School of Pharmacy A. Following the institution's guidelines on Family Educational Rights and Privacy Act (FERPA), the researcher provided the participant recruitment letters to the Chair of the Pharmaceutical Sciences Department, who forwarded them to the PY4 students. The recruitment letters included a link to SurveyMonkey® that captured participants' agreement to participate in the study. The recruiting emails to the PY4 students at the School of Pharmacy A were sent at the beginning of the second week of October 2014 (see Appendix E). Reminder emails were sent and forwarded weekly until the second week of November 2014 (see Appendices F and G). Once the principal investigator received a response

to any of the soliciting emails, further communications occurred between the principal investigator and the students.

There were four affirmative responses indicating their interest in participating in the study following the first recruitment email communication. There were an additional two affirmative responses following the second recruitment email communication. There was one additional affirmative response following the third email communication and no responses to the last recruitment email communication. Of the seven affirmative responses to participate in the study, two could not identify a clinical faculty member as a mentor in follow-up emails and were excluded from the study. One did not respond to two follow-up emails requesting the student state whether he/she had a clinical faculty member as a mentor and was excluded from the study. Of the four remaining participants, three planned to apply to a postgraduate residency to start in the Fall 2015. The fourth participant did not meet the inclusion criteria of planning to apply or have applied by the time of the interview. The participant planned to work for a few years and then apply to a pharmacy residency in the future. The participant was ultimately included in the study to assess whether the inclusion criteria should be expanded. Ultimately, the participant's responses convinced the researcher to expand the study's inclusion criteria to include PY4 students who plan to apply for a pharmacy residency in the future; not necessarily immediately post-graduation.

The researcher conducted the interviews in November and December 2014 via Zoom®, a web and video conferencing service company, and refined the interview questions based on participants' responses. Prior to conducting the interviews, the Informed Consent Form was verified by participants via SurveyMonkey® (see Appendix H). A list of mentoring characteristics was emailed to participants prior to each interview (see Appendix I). Based on

participants' responses, this list was excluded and not used on participants from the study at the School of Pharmacy B. Once the preliminary data were analyzed and changes made to the interview questions, the principal investigator conducted interviews utilizing students from the School of Pharmacy B in January to February 2015.

According to Merriam (2009), an approximate number of participants can be included in the proposal submitted to a dissertation committee and can later be adjusted during the investigation. For the purpose of this study, the researcher tried to recruit 10-15 individuals from a pool of 72 students at the School of Pharmacy B. The final number of participants interviewed depended on the amount of students who volunteered to participate in this study, content saturation, and whether including additional participants would lead to more comprehensive findings. Since only six participants were recruited from the School of Pharmacy B and thus content saturation was not reached, the interviews of the four participants from the School of Pharmacy A were merged to provide the data for the data analysis and results of this study, which can be found in Chapter 4. Permission was granted by the Dean of the School of Pharmacy A and the four participants from the School of Pharmacy A to have their responses included in the data analysis and results of this study. The participants will henceforth be known as Participants 1-10.

Setting

The sites of this study were at the School of Pharmacy A and the School of Pharmacy B, which are two of 70 colleges or schools of pharmacy that are private institutions. The rest of the 134 U.S.-based colleges or schools of pharmacy are publicly supported institutions (American Association of Colleges of Pharmacy [AACP], 2015). This researcher chose the School of Pharmacy B as one of the sites of study due to its hallmarks of pharmacy education. Two of the

hallmarks included teaching as a priority and its small class size (School of Pharmacy B, n.d.). According to the School of Pharmacy B, the student is its primary focus and as a result of the small class size, "meaningful faculty-student interaction is valued" (School of Pharmacy B, n.d., para. 8). These values made the School of Pharmacy B the appropriate setting to study the characteristics of clinical faculty mentoring and the role it plays in students' decision to pursue a pharmacy residency.

Population and Sample

This study used phenomenology to gain insight into a central phenomenon, mentoring. The interview sample was purposively selected from respondents who agreed to participate in the study after responding to an email(s) soliciting participants. "Purposeful sampling is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (Merriam, 2009, p. 77). According to Merriam (2009), there are six types of purposeful sampling: (a) typical sampling, (b) unique sampling, (c) maximum variation sampling, (d) convenience sampling, (e) snowball, chain, or network sampling, and (f) theoretical sampling. The researcher utilized convenience sampling for this study. Participants were selected based on their time and availability (Merriam, 2009).

Subjects had to be at least 18 years of age to participate and in their Professional Year 4 (PY4) at the School of Pharmacy A and the School of Pharmacy B. They must also have planned to apply to a pharmacy residency program sometime in the future or have already applied to a postgraduate pharmacy residency program by the time of the scheduled interview with the researcher. ASHP recommended that all applicants register for the residency Match by December 31, 2014, although each residency program had its own application deadline that may have differed from the recommended registration date for the Match. All applications and

interviews must have been completed prior to March 6, 2015, the deadline for the Rank Order Lists for the Match (National Matching Services, 2015c). Acceptance into a pharmacy residency was not required in order to participate in the study.

Data Collection Procedures

Based on the preliminary data from the study at the School of Pharmacy A, the list of semi-structured interview questions was refined and used on participants from the School of Pharmacy B. Following the institution's guidelines from the Family Educational Rights and Privacy Act (FERPA), the researcher provided the participant recruitment letters to the Chair of the Pharmacy Practice Department at the School of Pharmacy B, who then emailed them to the PY4 students beginning the second week of January 2015 (see Appendix E). The recruitment letters included a link to SurveyMonkey® that captured participants' agreement to participate in the study. The researcher sent weekly reminder letters via email to her contact at the school, which were forwarded to the students until the first week of February 2015 (see Appendices F and G). Further communications were between the principal investigator and participants once participants responded affirmatively to any of the recruitment emails.

There were nine affirmative responses indicating their interest in participating in the study following the first recruitment email communication. There were an additional two affirmative responses following the second recruitment email communication. There were no responses following the third email communication and two additional responses to the last recruitment email communication. One participant dropped out of the study before supplying informed consent. Another did not provide informed consent despite two follow-up emails by the researcher to obtain it and was excluded from the study. One provided informed consent but did not respond to two follow-up emails by the researcher to set up an interview date and time and

was excluded from the study. Two students did not show up for the first interview date and time. They were rescheduled but did not show up to the second scheduled interview and were excluded from the study. Eight students were interviewed in January and February 2015 but two were excluded. One student was excluded due to not meeting the inclusion criteria of the clinical faculty mentor being from the pharmacy practice department and the second student was excluded because she ultimately decided to work in retail. She did not intend to pursue a pharmacy residency in the future. The remaining six participants along with the four participants from the School of Pharmacy A were included in the data analysis for the results of this study.

Prior to the interviews, all participants gave their informed consent via email through the Informed Consent Form, which was approved by the University of New England Institutional Review Board (see Appendix H). The electronic signature for informed consent was captured via SurveyMonkey®. The researcher conducted the interviews via Zoom®, a web and video conferencing service company, in order to obtain the data and results of this study.

The Informed Consent Form stated how anonymity and confidentiality issues would be handled. The researcher stated that she would not share the individual names of participants. The researcher scheduled appointments with participants via email, and conducted the interviews, which lasted 30-60 minutes each, via Zoom®. The researcher audio-recorded and video-recorded each interview except for one participant from the School of Pharmacy A and one participant from the School of Pharmacy B, who were only audio-recorded. The transcription company, Rev®, was used to transcribe the interviews except for the first interview that was transcribed by the researcher. The researcher analyzed the data from both Schools of Pharmacy between January 2015 and March 2015 and submitted the dissertation for presentation in May 2015.

Besides recording and transcribing interview data, the researcher took notes. These notes helped with recollection of any tonal cues during the interview. Furthermore, these notes recorded the researcher's reactions to what participants said and helped pace the interviews (Merriam, 2009). The researcher also followed the sample interview protocol (see Appendix J). After conducting preliminary analysis of the data, the researcher shared the transcriptions of the interviews and preliminary analysis of the data with participants via email for their confirmation. This procedure is called member checking, which helped to ensure internal validity and credibility (Merriam, 2009).

The researcher provided each participant from both Schools of Pharmacy with a $10.00 gift card as compensation for participation in this project. Receipt of this compensation was not dependent on completion of the interview, nor on verification of the transcriptions of the interviews.

Instrumentation

"Interviewing is necessary when we cannot observe behavior, feelings, or how people interpret the world around them" (Merriam, 2009, p. 88). Since the mentoring relationship between a pharmacy student and a clinical faculty member cannot be directly observed, the researcher conducted interviews to elucidate and better understand this relationship. The researcher utilized a tentative list of semi-structured, open-ended questions during the qualitative guided interviews (see Appendix J). Having a semi-structured guide would elicit specific data from all respondents and provide flexibility along the way (Merriam, 2009). Since these interviews were conducted using Zoom® and were audio-recorded and video-recorded, the researcher had additional chances to listen to the interviews. The audio recordings helped with the transcription of the interviews. The first interview conducted in this study was transcribed by

the researcher. The rest of the interviews conducted in this study were transcribed by a transcription company named Rev®.

Data Analysis

In phenomenology, there are several techniques used in data analysis to discover the essence of the phenomenon. They are epoche (bracketing), phenomenological reduction, and horizontalization imaginative variation (Creswell, 2013; Merriam, 2009). In epoche (bracketing), the researcher sets aside personal experiences and biases or becomes aware of and acknowledges personal assumptions about the investigating phenomenon. By bracketing, the researcher's personal viewpoints do not affect the results and a fresh perspective can be undertaken (Creswell, 2013; Merriam, 2009). "*Phenomenological reduction* is the process of continually returning to the essence of the experience to derive the inner structure or meaning in and of itself. We isolate the phenomenon in order to comprehend its essence" (Merriam, 2009, p. 26, emphasis in original). Horizontalization imaginative variation involves laying out all data, treating each data point with equal value, and viewing the data from different perspectives and angles (Merriam, 2009). Regardless of which data analysis technique is used, the aim is to understand the meaning of the phenomenon being studied.

The researcher manually analyzed the transcript data by reading the data, marking it by hand, and dividing it into parts (Creswell, 2012). Also, the researcher used a system of coding to organize and manage the data.

> Coding is nothing more than assigning some sort of shorthand designation to various aspects of your data so that you can easily retrieve specific pieces of the data. The designations can be single words, letters, numbers, phrases, colors, or combinations of these. (Merriam, 2009, p. 173)

The coding process would allow themes or categories to emerge (Creswell, 2012). Tesch (1990, pp. 142-145) recommended the following steps for coding:

1. Get a sense of the whole by reading all transcripts carefully and jot down emergent ideas in the margins.

2. Pick one document and question its underlying meaning. Write thoughts in the margin.

3. Once this task is completed for the other participants, cluster together similar topics and arrange them into major topics, unique topics, and leftovers.

4. Return back to the data with the topics, abbreviate the topics as codes, re-analyze, and determine if new codes emerge.

5. Turn the topics into categories or themes. Reduce the number of themes by grouping topics related to one another.

6. Finalize the abbreviations of each category and alphabetize the codes.

7. Perform a preliminary analysis of material belonging to each category.

8. Recode existing data if necessary.

After completion of data coding and analysis for themes, the researcher reported the findings and interpreted the research to discover the "essence" of mentoring phenomenon in pharmacy education (Creswell, 2013). In other words, the "essence" is the what and how participants experienced the phenomenon (Creswell, 2013).

Ethical Considerations

The researcher's main obligation is to respect the rights of the participants. Accordingly, the researcher obtained informed consent electronically via SurveyMonkey® from all participants before each interview. Prior to the start of each interview, the researcher informed participants of the purpose of the study and the study procedures. Participants were permitted to leave the study

at any time. The researcher maintained anonymity and confidentiality and never disclosed the names of participants in the study.

Limitations of the Study

Since this study was conducted via Zoom®, a web and video conferencing service company, the drawback of this form of interviewing was the lack of direct contact with participants. This may have affected the researcher's understanding of the participants' answers and their perceptions of the mentoring phenomenon.

The researcher believes a lack of mentoring while in pharmacy school may have influenced her decision not to pursue a pharmacy residency. Due to this, the researcher's career aspirations have not been achieved as of yet. The researcher's perception of the positive effects of mentoring may have affected perceptions of participants' answers that may conflict with what was actually expressed by participants.

The researcher did not have any relation to any of the participants. However, the researcher must disclose the fact that she personally knows and has interacted with the Chair of the Pharmaceutical Sciences Department at the School of Pharmacy A and some of the clinical faculty at the School of Pharmacy B, including the Chair of the Pharmacy Practice Department. This relationship to the stakeholders may introduce bias into this study.

CHAPTER 4

RESULTS/OUTCOMES

The purpose of this study was to explore the Professional Year 4 (PY4) pharmacy students' experiences with clinical faculty mentoring in relation to their decision to pursue a pharmacy residency. This phenomenological study sought in-depth qualitative data through semi-structured open-ended interviews whereby participants related their mentoring experiences in first-person accounts. This chapter presents the findings in this study. Seven themes with connected elements emerged from the data analysis process. The implications and recommendations from these results are discussed in Chapter 5.

Description of the Sample (School of Pharmacy A)

Demographics of the participants were collected at the end of each interview. Three out of the four participants were female and one out of the four was male. One out of four participants was between the ages of 20-25, two out of four were between the ages of 26-30, and one out of four was between the ages of 31-35. Two out of four participants self-identified their race or ethnicity as White, one out of four self-identified as Asian/Pacific Islander, and one out of four selected Other and self-identified as Egyptian. One out of four participants possessed a Bachelor's degree, one out of four possessed Associate's and Bachelor's degrees, one out of four possessed two Bachelor's degrees, and one out of four did not possess any degrees.

Qualitative Data Analysis (School of Pharmacy A)

The semi-structured interview protocol consisted of seven open-ended questions. Based on the responses of the first two participants, six of the seven interview questions were changed. The new set of open-ended questions was used on the last two participants. Each interview was conducted via Zoom® and was audio and video-recorded except for one participant who was only

audio-recorded. The first interview was transcribed by the researcher and the other three interviews were transcribed by a transcription company named Rev®.

Based on the participants' reactions to the list of mentoring characteristics emailed to them prior to the interviews (see Appendix I), it was deemed by the researcher to be too confusing for the participants. Furthermore, the researcher felt that the participants tried to answer the interview questions that aligned with the list of mentoring characteristics and thus may have biased their responses. Therefore, the list of mentoring characteristics emailed to participants prior to the interview was excluded for the School of Pharmacy B.

Upon completion of transcription and preliminary analysis of each interview, a copy was emailed back to each participant for member checking. All four participants responded that they were okay with the transcriptions and preliminary analysis of each interview with no need for clarifications or changes.

The preliminary analysis of each interview was conducted manually by the researcher. Themes began to emerge after the preliminary analysis of the answers provided by the participants. Common initial themes that were found include the following: (a) positive vs. negative mentoring experiences, (b) formal vs. informal mentoring, (c) utilization of psychosocial mentoring functions by the mentor, (d) effects of mentor/mentee characteristics, (e) time spent with the mentor, (f) transformative mentoring, (g) reasons for pursuing a pharmacy residency, and (h) barriers to pursuing a pharmacy residency.

Based on the data gathered from the School of Pharmacy A, changes were made to the interview questions and the inclusion criteria were expanded. The list of mentoring characteristics emailed to participants prior to the interview was not used for participants from the School of Pharmacy B.

Description of the Sample (School of Pharmacy B)

Demographics of the participants were collected at the end of each interview. Five out of six participants were female and one out of six was male. Six out of six participants were between the ages of 20-25. Six out of six participants self-identified their race or ethnicity as White. Six out of six participants possessed a Bachelor's degree. It needs to be noted that the School of Pharmacy B awards their pharmacy students with a Bachelor's of Science degree during their pharmacy studies. Only one student out of six possessed a Bachelor's degree prior to attending pharmacy school.

Qualitative Data Analysis (School of Pharmacy B)

The semi-structured interview protocol consisted of seven open-ended questions. Each interview was conducted via Zoom® and was audio and video-recorded except for one participant who only wanted to be audio-recorded. All interviews were transcribed by a transcription company named Rev®.

Upon completion of transcription and preliminary analysis of each interview, a copy was emailed back to each participant for member checking. All six participants responded that they were okay with the transcriptions and preliminary analysis of each interview with no need for clarifications or changes.

The preliminary analysis of each interview was conducted manually by the researcher. Themes began to emerge after the preliminary analysis of the answers provided by the participants. Common initial themes that were found were the same as those for the School of Pharmacy A and included the following: (a) positive vs. negative mentoring experiences, (b) formal vs. informal mentoring, (c) utilization of psychosocial mentoring functions by the mentor, (d) effects of mentor/mentee characteristics, (e) time spent with the mentor, (f) transformative

mentoring, (g) reasons for pursuing a pharmacy residency, and (h) barriers to pursuing a pharmacy residency.

Description of the Sample (School of Pharmacy A and School of Pharmacy B)

Since the estimated 10-15 participants fom the School of Pharmacy B was not reached, the four participants from the School of Pharmacy A were merged with the six participants from the School of Pharmacy B for a sample size of 10. Eight out of 10 participants were female and two out of 10 were male. Seven out of 10 participants were between the ages of 20-25, two out of 10 were between the ages of 26-30, and one out of 10 was between the ages of 31-35. Eight out of 10 participants self-identified their race or ethnicity as White, one out of 10 self-identified as Asian/Pacific Islander, and one out of 10 selected Other and self-identified as Egyptian. Six out of 10 participants possessed a Bachelor's degree, one out of 10 possessed an Associate's and Bachelor's degrees, two out of 10 possessed two Bachelor's, and one out of 10 did not possess any degrees.

Qualitative Data Analysis (School of Pharmacy A and School of Pharmacy B)

Ten to 15 participants were sought for interviews to reach data saturation. According to Seidman (2013), there are two important criteria to help determine when there are enough participants. They are (a) sufficiency and (b) saturation. "Are there sufficient numbers to reflect the range of participants and sites that make up the population so that others outside the sample might have a chance to connect to the experiences of those in it?" (Seidman, 2013, p. 58). Saturation is the point where the researcher determines that nothing new can be learned by interviewing more participants. In order to fulfill these two criteria for this study, the data from the four participants from the School of Pharmacy A and the six participants from the School of Pharmacy B were merged to provide enough data for sufficiency and saturation. Additional

permission was granted by the Dean of the School of Pharmacy A and the four participants from the School of Pharmacy A to have their responses included in the data analysis and results of this study. The participants are known as Participants 1-10.

According to Kram (1983), the mentoring relationship consists of four phases: (a) initiation phase, (b) cultivation phase, (c) separation phase, and (d) redefinition phase. The 10 mentoring relationships in this study did clearly show the first two phases. In the first phase, there was the time when the relationship first began. In the second phase, the range of psychosocial mentoring functions provided reached a maximum. While there was the start of a separation phase between the students and their mentors, their current established nature of their relationship was not substantially altered by structural changes within their organization, nor by the psychological changes within the students. Phase IV was not reached by the participants. Figure 4.1 illustrates the mentoring phases of the participants in this study.

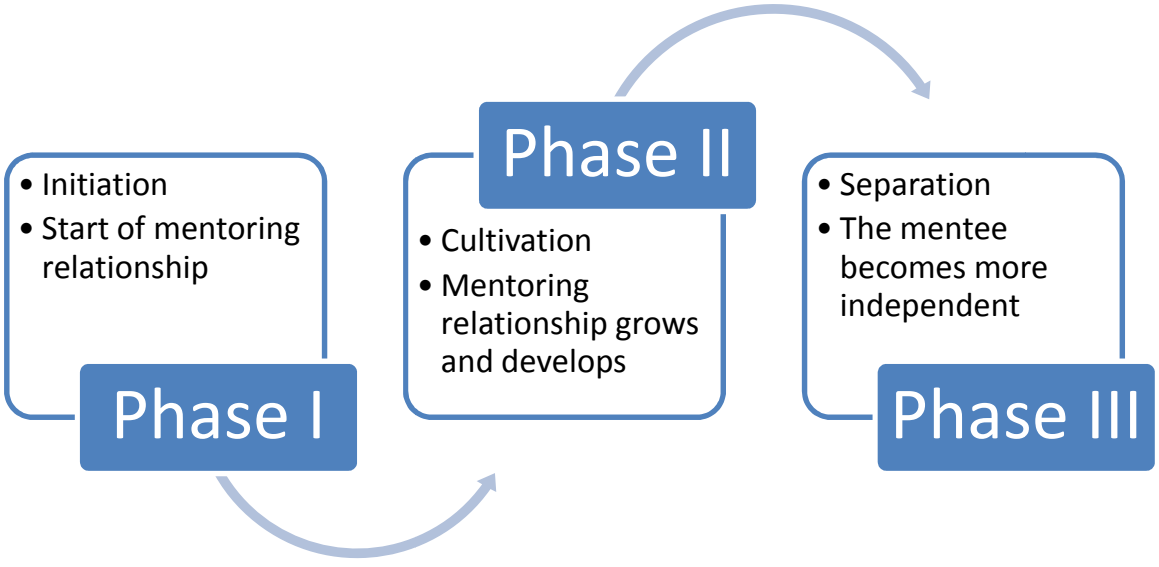

Figure 4.1. Three phases of the mentoring relationship.

The themes found in this study were not necessarily specific to a phase (unless otherwise noted) but may have overlapped among the three phases. The emergent themes and the connected elements are:

Theme 1: Type of mentoring relationship.

The first theme that emerged from the data analysis was the type of mentoring relationship between the mentor and mentee. The mentoring relationships each began in Phase I (the initiation phase) with the positive and negative aspects of the relationship primarily occurring in Phase II (the cultivation phase).

Connected element 1a*: *Informal versus formal. All of the 10 mentoring relationships began informally. School of Pharmacy A and School of Pharmacy B do not have formal mentoring programs. The mentoring relationships were found to be initiated by five different informal pathways: (a) advisor, (b) pharmacy residency informer, (c) co-author, (d) class, and (e) Introductory Pharmacy Practice Experiences (IPPE) rotations. After the initiation, many of the relationships progressed on to different routes where much of the cultivation occurred.

Participant 1's and 2's mentoring relationships began when their mentors were advisors for their student organizations. Participant 10's mentoring relationship began when her mentor initially started out as her assigned advisor in the pharmacy program. Participants 1's and 2's mentoring relationship progressed from an advisor/student to mentor/mentee when they both began to seek out the mentor apart from the advisory role and began asking questions about residency programs. After getting to know her mentor in the advisory role, Participant 10 pursued four self-directed IPPE rotations with her mentor. During these IPPEs, the mentor got the mentee involved in different activities such as helping Girl Scouts get their badges in nutrition, health, and fitness, partnering with the Department of Health to present a health fair on

Human Papillomavirus (HPV) vaccinations, writing articles for the school newspaper focusing on pharmacy-related issues, and doing an IPPE in poison control. Participant 10 noted that the advisor/advisee progressed to more of the mentor/mentee relationship when they collaborated on projects outside of the IPPE rotations. Participant 10 explained:

> I think it progressed when she wanted me or when we got together to do projects that were outside of the mandated IPPE hours for our school. I think when she wanted me to start writing articles with her and sort of doing activities that had more of professional impact rather than just an impact on the School of Pharmacy B community. I think she saw that I took initiative and I think that she thought that would not only benefit me by including me in the activities but it would also benefit her as having somebody that she could depend on.

Participant 3's mentoring relationship began when she first attended pharmacy residency information sessions during her Professional Year 3 (PY3). Her clinical faculty mentor was one of those who presented and was available for questions about pharmacy residencies. From attending the information sessions during her PY3, Participant 3 got to know her clinical faculty mentor during a longitudinal care class and then when she had the mentor during her first Advanced Pharmacy Practice Experience (APPE) rotation in PY4.

While Participant 4 knew her clinical faculty mentor from a pharmacotherapy class during her Professional Year 2 (PY2), the mentoring relationship did not begin until she approached her mentor about co-authoring a movie review for a professional organization that was later published in a medical journal. Participant 4 later pursued a psychiatric APPE rotation with her mentor.

The mentoring relationships for Participants 5, 6, and 8 began when their clinical faculty mentors taught in class during PY2 for Participants 5 and 6 and during Professional Year 1 (PY1) for Participant 8. Participant 5 was later assigned an IPPE rotation with her mentor and she then selected her mentor for an APPE rotation. Participant 6 really liked the way her mentor taught during one of her PY2's pharmacotherapy classes. During lectures, the mentor would discuss his work in a clinic and Participant 6 became interested in what he did as a pharmacist. She later pursued an APPE rotation in Ambulatory Care with her mentor. Participant 8's progressed from a Care Lab class and Kappa Psi organization during PY1. It was during a PY3 pharmacotherapy class that her mentor would talk about pharmacy residencies. Participant 8 furthered the mentoring relationship when she signed up for an APPE rotation in Ambulatory Care with her mentor during PY4.

Participants 7 and 9 began their mentoring relationships from having their clinical faculty mentors as preceptors during their IPPE rotations. Participant 7 had IPPE rotations with her mentor during PY1 and PY2 and then in class. She selected her mentor for an APPE rotation based on her observations of the mentor's interactions with APPE students when she was an IPPE student. Participant 9 first had his mentor during an IPPE rotation in PY2, then in a diabetes class in PY3, and then he selected an APPE rotation with his mentor for PY4.

Connected element 1b: Positive versus negative. All participants stated they had positive experiences with their mentors. Participant 5 talked about how she helped her mentor with completing patient assistance types of paperwork at the clinic during one of her rotations. This allowed the mentee to learn about the processes at the clinic and to develop new skills that helped with these operational processes. According to Participant 7, most of her positive experiences stemmed from the mentor's positive reinforcement and encouragement. Participant

10 noted that since she had positive experiences during her first IPPE with her mentor, she was propelled to sign up for three additional IPPEs with her mentor. She stated, “Yes, definitely. She made sure that it was very well organized and that it wasn't just fulfilling an hourly requirement, but that it was actually beneficial.”

While all participants had positive experiences, Participants 3, 4, and 9 did experience negative incidents that became positive experiences that they all felt benefitted them in the end. Participant 3’s negative experience began when she first received a failing grade from her mentor for a SOAP (subjective, objective, assessment, and plan) note assignment during a longitudinal care class, which upset her greatly. Participant 3 approached her mentor and was impressed by how receptive the mentor was to her concerns. Her mentor explained why she received the failing grade and what she could do to improve her grade for the next time. In the end, Participant 3 expressed how this negative experience turned into a positive one for her because it helped her improve writing SOAP notes.

Participant 4 had asked her mentor to look over her literature review for publication that came back to her full of red marks. At first, Participant 4 felt that her mentor thought she was an idiot but after speaking with her mentor, she found out that she had done a good job. Furthermore, after reflecting on the incident, Participant 4 concluded that the red marks meant that her mentor had thoroughly read through the draft and as a result the student came to really appreciate her feedback. Lastly, Participant 9 stated that the mentor was very demanding during his APPE rotation but that this later benefitted him. He explained:

> I would say the only thing, as helpful as he was, he was very demanding of what we did. He expected a lot from us. But I had known that going into it, and that's why I took the rotation. I really wanted to take advantage of a great experience while learning a lot of

> the material. I would say that the only flaw was that he was so demanding and took a lot of work that it'd be . . . I mean, each patient write up took me about an hour and a half, two hours of my time, so really being thorough and demanding. It was tough, but very beneficial in the end. The only downfall was the amount of work that I had to put into it.

While three participants did have negative experiences, these incidents became positive learning experiences for them. The rest of the participants did not identify any negative experiences and stated that they only had positive experiences with their mentors.

Theme 2: Mentoring functions.

Connected element 2a*: *Psychosocial. Kram (1983, 1985) in her research identified two types of mentoring functions in a corporate setting: (a) psychosocial and (b) career. This study explored Kram's four psychosocial mentoring functions provided by the mentor. They are (a) role-modeling, (b) acceptance-and-confirmation, (c) counseling, and (d) friendship. Table 4.1 indicates which psychosocial mentoring functions were experienced by participants, which often occurred during Phase II of the mentoring relationship.

Table 4.1

Summary of Psychosocial Mentoring Functions Experienced by Participants

	Psychosocial Mentoring Functions			
Participants	Role-Modeling	Acceptance-and-Confirmation	Counseling	Friendship
1	✓	✓	✓	
2	✓	✓	✓	
3	✓	✓	✓	
4	✓	✓	✓	
5	✓		✓	✓
6	✓	✓	✓	✓
7	✓	✓	✓	✓
8	✓	✓	✓	✓
9	✓	✓	✓	✓
10	✓	✓	✓	✓

Note. Relative importance of each psychosocial mentoring function was not denoted by participants.

In role-modeling, the mentors' behaviors and attitudes were examples of professional behaviors for the participants to emulate. While all participants agreed that they experienced role-modeling, their experiences varied. For example, Participant 1 stated that he learned the importance of time management skills, which he was still trying to improve. According to Participant 2, the clinical faculty mentor's professional behaviors (acting, talking, and dressing professionally) struck a chord with the mentee and helped provide a clear professional identity for the student to emulate. This really inspired the student to seek other options besides retail

upon graduation. Participants 3 and 4 learned how to interact with their patients based on their observations of their mentors' interactions with patients. Participant 5's mentor identified herself as an introverted extrovert. Since the mentee identified herself the same way, she began to do what the mentor would do sometimes, which was to think about what was said and then come back later to clarify comments. For Participants 3 through 9, the role-modeling experiences occurred during APPE rotations but for Participant 10, the role-modeling experiences occurred during IPPE rotations.

In acceptance-and-confirmation, a mentor provides support and encouragement. All participants except Participant 5 provided examples of their acceptance-and-confirmation experiences, although such experiences varied. For example, Participant 1's clinical faculty mentor supported and encouraged the student to take on more leadership roles in various student organizations. The mentor recognized Participant 1's leadership potential and the mentor's belief resonated with the student and increased his self-confidence. Participant 2 received ongoing support from her mentor when she ran for a regional liaison position in a student organization. Participant 2 stated:

> I ran for regional liaison and when I told her that I was accepted in the position she wrote me a really welcoming email, just kind of excited for me and thought that she was excited to see me really first do something outside the school and just really supportive, but then she thought I would do an amazing job.

Some mentors expressed their acceptance-and-confirmation psychosocial mentoring function by providing ongoing support during the pharmacy residency application process. For example, the clinical faculty mentor went out of her way to look at Participant 3's curriculum

vitae and found a way for the mentee to write an article, which will later be published, in order to help the mentee stand out among other pharmacy residency applicants.

In counseling, the mentor acts as a sounding board by providing feedback and active listening in order to help the mentee cope with fears and anxieties about personal issues. All of the participants stated that they received counseling from their mentors, although their experiences varied. For example, Participant 1 had personal concerns about conflicts with another student in a student organization and with another faculty member. He was able to resolve these issues based on counseling provided by his clinical faculty mentor. Participant 4's clinical faculty mentor provided counseling by acting as a sounding board for the student in terms of her concerns regarding personal issues pursuing a pharmacy residency. Participant 4 ultimately decided to not pursue a pharmacy residency immediately but later in the future after working for several years.

In friendship, the mentoring relationship extends beyond the organization whereby experiences that happened outside of work are shared with one another. Six of the ten participants mentoring relationship developed into friendship. Participant 9 stated, "I would say, on a personal level, he's been very good. We're . . . (giggles). We'll play golf once the weather gets nicer out. So, it's definitely been a very good friendship." Participant 10 expressed that her friendship with her clinical faculty mentor has allowed her to grow and feel more like a colleague than a student:

> I think so. I think we definitely have quite a few things in common and I feel as if the way that she treated me as a student, she treated me more as a colleague, which I think sort of fostered friendship. . . . We've gone out for lunch a few times and we do talk about different personal things as well.

The other mentoring relationships in this study did not extend into friendship. For example, Participant 1 expressed his personal belief that it is not a good idea for teachers and students to be friends, “I don’t think that my mentor/mentee relationship with anyone should progress to that level because I think that will get a little bit tricky.” The researcher did not pursue further questioning of this topic with Participant 1 because the researcher’s observation of his body language indicated the participant was uncomfortable with this line of questioning.

Theme 3: Mentor characteristics.

Past mentoring research has shown that personality affects the mentoring relationship (Ragins & Kram, 2007). Some successful mentor characteristics include patience, enthusiasm, being knowledgeable, and having a sense of humor (Fawcett, 2002). Table 4.2 shows the mentor personality traits identified by the participants that helped support the mentoring process.

Table 4.2

Summary of Mentor Characteristics Identified by Participants

	Participants									
Mentor Characteristics	1	2	3	4	5	6	7	8	9	10
Helpful	✓	✓				✓	✓	✓	✓	
Professional (acted, talked, or dressed)	✓	✓	✓	✓	✓			✓		
Knowledgeable	✓	✓				✓	✓		✓	
Listened	✓	✓			✓		✓			✓
Approachable	✓				✓	✓	✓			
Constructive feedback/criticisms		✓	✓	✓	✓					
Encouraging	✓		✓				✓			✓
Flexible with time/available to students	✓				✓	✓				
Guided students	✓	✓						✓		
Nice		✓						✓	✓	
Stays on top of new information		✓				✓	✓			
Supportive	✓	✓						✓		
Very open		✓		✓		✓				
Allowed student autonomy/independence							✓		✓	
Caring		✓			✓					
Empathetic/respectful to patients				✓				✓		
Friendly	✓				✓					

Table 4.2 (continued)

	Participants									
Mentor Characteristics	1	2	3	4	5	6	7	8	9	10
Good professional interactions/communications	✓									✓
Not intimidating						✓				✓
Offers advice	✓						✓			
Personable	✓					✓				
Respected by others/colleagues		✓						✓		
Respectful to student	✓						✓			
Teaching style easy to understand					✓	✓				
Team player		✓						✓		
Treats student as a colleague/equal			✓						✓	
Accommodating									✓	
Comfortable to be around								✓		
Demanded students do their best									✓	
Dependable/reliable during crisis/event							✓			
Does not act superior			✓							
Down to earth						✓				
Easy to work with								✓		
Gave good advice							✓			
Great time management skills	✓									

Table 4.2 (continued)

	Participants									
Mentor Characteristics	1	2	3	4	5	6	7	8	9	10
Honest		✓								
Innovative		✓								
Low-key personality								✓		
Not a micro-manager (hands-off)									✓	
Not demeaning/not condescending							✓			
Organized										✓
Passionate about work										✓
Patient								✓		
Positive				✓						
Positive reinforcement							✓			
Prepared					✓					
Recognizes efforts of students				✓						
Relatable										✓
Represents high standard		✓								
Resourceful								✓		
Set expectations ahead of time					✓					
Social					✓					
Sounding board	✓									
Talkative					✓					

Table 4.2 (continued)

	Participants									
Mentor Characteristics	1	2	3	4	5	6	7	8	9	10
Trustful of student			✓							
Understanding								✓		
Very warm				✓						
Welcoming			✓							

Note. Relative importance of each mentor characteristic was not denoted by participants.

Theme 4: Mentee characteristics.

Ragins and Kram (2007) stated that the effectiveness of mentoring relationships was influenced by personality. Important protégé characteristics are ambition, motivation, patience, and willingness to take risks (Schrubbe, 2004). Table 4.3 shows the mentee personality traits identified by the participants or observed by the researcher that helped the mentoring process.

Table 4.3

Summary of Mentee Characteristics Identified by Participants or Observed by Researcher

	Participants									
Mentee Characteristics	1	2	3	4	5	6	7	8	9	10
Go-getter	✓		✓	✓	✓	✓	✓	✓		✓
Active in student organizations	✓	✓	✓		✓	✓		✓	✓	
Motivated	✓		✓			✓	✓	✓	✓	✓
Leader		✓	✓		✓			✓		✓
Hard worker							✓	✓	✓	
Works well with others	✓	✓						✓		
Ambitious	✓			✓						
Personable	✓						✓			
Accepts criticism					✓					
Can easily talk to people						✓				
Caring		✓								
Compassionate		✓								
Competitive		✓								
Exceeded mentor's expectations during rotations							✓			

Table 4.3 (continued)

	Participants									
Mentee Characteristics	1	2	3	4	5	6	7	8	9	10
Good personality								✓		
Humble									✓	
Introverted extrovert					✓					
Knowledgeable	✓									
Learned from mistakes									✓	
Life-long learner							✓			
Open						✓				
Outgoing							✓			
Passionate		✓								
Reliable										✓
Well-rounded								✓		

Note. Relative importance of each mentee characteristic was not denoted by participants or researcher.

Connected element 4a: Transformative changes. All participants discussed how they changed due to mentoring from their clinical faculty mentors. All participants except for Participant 6 stated that they became more confident in their abilities; whether in leadership roles, their ability to do a pharmacy residency, and their capability to be more independent. The following quotes by participants illustrate the changes that the participants experienced.

The “turning point” for Participant 1 was the mentoring. During his first year in pharmacy school, he “was not involved in any leadership at all.” The mentor’s identification of leadership characteristics within the student made him take on leadership roles in student organizations and propelled him to be “more willing, more confident in doing a residency program.” Furthermore, Participant 1 became more “motivated” to pursue a pharmacy residency after observing the clinical faculty mentor’s extensive clinical knowledge and having her tell him about her own residency training.

It was noted by Participant 2 throughout the interview of the change within herself throughout the mentoring process. Prior to the mentoring relationship, the student did not consider doing a residency. It was not on her “agenda” or “goals.” Participant 2 did not consider herself competitive “enough” due to lack of research publications despite her multiple leadership titles in various student organizations. The student’s self-doubt and lack of confidence was clearly seen by the researcher and admitted by the student. It was not until the mentor identified the student’s strengths/weaknesses, leadership qualities, and competitive application profile did the student become more self-confident and thought that she could do a residency. As the mentoring relationship progressed, Participant 2 expressed that she did change, becoming less hesitant and more confident.

Participant 3 expressed the changes within her throughout the mentoring process:

> I do really feel like I'm more confident. Definitely, that's a big one because in the beginning I would be very hesitant to answer questions. I'd be hesitant to do things on my own and so she's definitely given me that confidence to be able to do things on my own and realize that I have ability and I have the skills and I can do it on my own now and I

> don't need to always look back and ask someone, am I doing this right, am I doing this right. . . . I know what I can do, I know what I'm capable of.

Theme 5: Time spent with mentor.

According to Noe et al. (2002), the frequency of interaction had a positive effect on informal relationships. As a result, formal mentoring programs often specify the frequency of meetings in order to facilitate a more positive relationship. However, meeting cancellations and difficulty in arranging meetings due to busy schedules have caused concern and frustration for mentees (Brown & Hanson, 2003; Price & Balogh, 2001).

In this study, the time mentees spent with their mentors varied and was not consistent with one another except for those participants who had APPEs with their mentors. They would meet on a daily basis. However, once the APPE rotations were finished, the time spent with their mentors differed for each participant.

According to Participant 1, the mentoring pair met once a month about the student organization they both participated in but later met more often when the clinical faculty mentor taught a class. At that point, he stated that they met on average “once a week or so.” He stated that the mentor “was very flexible with timing.”

Participant 4 stated:

> I didn't really meet with her on a regular basis. I would email her once in a while. I went down to her office a few times. Other than the rotation, where I was with her everyday. I didn't have like regular contact with her.

Participant 5 would approach her mentor 2 weeks prior to an exam about two to three times. She would also have brief instances of stopping by the mentor’s office to say hi due to the central location of the office. During her APPE rotation, they met on a daily basis but since the

end of the rotation, she has not met with the mentor on a regular basis due to the participant not being in the same city as her mentor. Despite this lack of constant communication, they have kept in touch, especially since the mentor wrote a letter of recommendation for the mentee's pharmacy residency applications. From the researcher's lenses, it seemed as though it is not the quantity of time spent with the mentor but the quality of time. Participant 5 stated:

> So it's one of those things where it's a comfortable conversation every time and if I want her to edit something for me or look something over for me that she would do it for me, kind of from a distance.

Participants 6, 7, and 8 did agree with the researcher's statement that it was the quality of time spent with their mentors rather than the quantity of time that was more important and influential in their decision to pursue a pharmacy residency. However, for Participant 10, the time she spent with her mentor was the most influential in her decision to pursue a residency. She stated:

> I think it was the fact that it was more of longitudinal project rather than an activity that we completed and it persisted over the year. So, I feel as if that sort, the longitudinal nature of it really helped me keep in touch with her better and it, . . . I guess it was just more beneficial to have an ongoing project rather than a short, little project.

During the newspaper IPPE rotation, Participant 10 spent more time with the mentor over a longer period and more often. Instead of emailing once a month, they would email or talk to each other maybe twice a week.

Theme 6: Decision-making.

When participants first entered pharmacy school, some wanted to pursue a pharmacy residency, some were unsure whether to pursue one, or some did not think of doing a pharmacy

residency. For those who absolutely wanted to pursue a pharmacy residency from the beginning, their mentoring relationship with their clinical faculty mentor reinforced their decision. For those who were unsure whether to pursue a postgraduate residency or did not think of completing a pharmacy residency, mentoring from their clinical faculty mentor helped to change their minds to pursue a pharmacy residency. Figure 4.2 shows the three paths to the participants' decision to pursue a pharmacy residency.

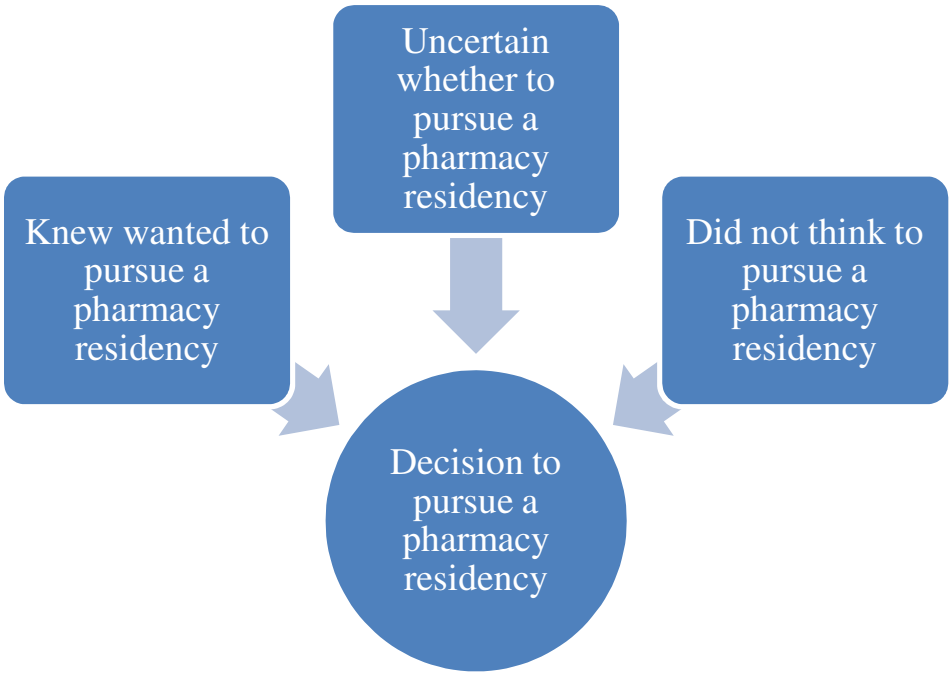

Figure 4.2. Summary of pathways leading to the decision to pursue a pharmacy residency.

The participants' decision to pursue a pharmacy residency was either reinforced or they were influenced to change their mind if they were uncertain or did not think to pursue a pharmacy residency by their mentoring relationship. Participants discussed what were the most influential factor(s) in their mentoring relationships and what barriers/perceptions of residency influenced their decision.

Connected element 6a: ***Most influential factor(s) that influenced decision.*** The most influential factor(s) affecting participants' decision to pursue a pharmacy residency varied. For Participant 1, it was his mentor's descriptions of her own pharmacy residency experiences and her extensive clinical knowledge gained from her residency that persuaded him to pursue a pharmacy residency. Participant 1 stated:

> I have to say that her extensive clinical knowledge, what she went through, her pharmacy training in her two years, what effort she put in, what she was telling us about her residency training. I can see that turned out to help her to be a very proficient practitioner. That was one of the main things that motivated me. That was something I really wanted to do. Not only one year of residency, I should really do two years of residency if I want to be as proficient as she is.

For Participants 2 and 7, it was the mentors' confidence they had in their mentees, which helped them expel their doubts about themselves and convinced them to pursue a pharmacy residency. Participant 2 stated:

> I think one of the most important things is the confidence that she had in me that I would be successful in a residency program. I think that kind of reassurance is what I particularly needed because I was so confused if I was capable of doing it. I can work in group and teams. I guess maybe not being able to see what it was like to be in a residency program, I think that was kind of hard. But then when I experienced that during rotations, just having her confidence and saying I think you would do really well, and just highlighting some of the characteristics that would make me a good resident. Then also letting me know that what I wanted as far as how to provide patient care and letting me know that if that's what my goal is that I would be able to provide a higher level patient

> care if I was to be able to pursue a residency. So I think just the confidence she had in me, pointing out the characteristics that I need to help me reach my goals is really important and that kind of let me know that I can do a residency and I should pursue a residency.

Participant 7 originally did not have any intention to pursue a pharmacy residency. When the mentor stated that the mentee would be a good fit for residency, this helped with the mentee's self-doubt and fear of failure. The positive reinforcement and encouragement from her mentor were most influential in Participant 7's decision to pursue a pharmacy residency.

According to Participant 4, her clinical experiences during her APPE rotation would be similar to what a pharmacy residency would be like so this helped solidified her decision to pursue a pharmacy residency sometime in the future. Participant 4 stated, "A residency would be similar to the rotation that I did, having direct patient contact. So, I've been interested in the subject material and the rotation really solidified that. This is what I like working with."

According to Participant 8, besides her clinical experiences during her APPE rotation being influential in her decision to pursue a pharmacy residency, she also expressed the sentiments that the quality of time spent with her mentor was important along with having her mentor motivating her. She stated:

> I guess I would have to say just the interaction of being on rotation and seeing what an ambulatory care pharmacist does. But then within the time with my mentor, I would have to say time or quality of the time spent with the preceptor or the mentor, and it really is the quality. I think it's just someone believing in you and you kind of think wow maybe I could do a residency or this is definitely something I thought about but just having

> someone else there that's kind of motivating you and on your side, has really influenced me in wanting to do a residency.

In addition, she felt that the relationships between teachers and students were so important in helping to influence a student's decision to pursue a pharmacy residency. She communicated her thoughts:

> I would just have to say, just teachers at schools building relationship with their students, I think it's really important. Residency wise or any wise, just showing an interest in someone kind of helps them to enjoy what they're doing at the school, be able to have a relationship with the faculty member and from that, it kind of influences them to become more motivated, to grow as a healthcare professional or become a pharmacist or a clinical pharmacist or, in anything that they want to do. So, I would really just have to say the relationships that are built.

Besides her experiences during her APPE rotation being the most influential, Participant 5 stated that traveling to professional meetings with other clinical faculty and observing them in a professional setting was also influential in her decision to pursue a pharmacy residency.

Participant 9 was on the fence about pursuing a residency but because of the respect he observed that his mentor received from the clinical staff, family medicine residents, and physicians, he became convinced to pursue a pharmacy residency. Respect was also the reason for Participant 3 who stated:

> It was really influential to see how she communicated with patients and how patients really respected her. You can tell someone that they have this relationship with patients but until you really see it hands on I feel like, for me, it doesn't mean as much. So, that

really was the ultimate, I guess, deal breaker for me to pursue residency when I saw that and I just really respected it.

Participant 6 stated that just having the opportunity to discuss with her mentor her concerns about whether or not to pursue a pharmacy residency was the most influential thing in her eventual decision to pursue a pharmacy residency.

Participant 10's school newspaper IPPE rotation was the most influential in her decision to pursue a pharmacy residency. The longitudinal nature of the rotation allowed her to keep in better touch with her mentor and was more beneficial to the mentoring relationship.

All the participants' mentoring relationship had an influential impact on their decision to pursue a pharmacy residency. However, the types of experiences that were the most influential varied among the participants.

Connected element 6b*: *Perceptions of residency that influenced decision. Pharmacy organizations such as ASHP and ACCP have pushed for mandatory postgraduate residencies for students by 2020 in order to meet the changing demands of the field of pharmacy (ASHP, 2014; Murphy et al., 2006). Bucci et al. (1995) and McCarthy and Weber (2013) found the perception that residency and fellowship training were necessary for certain jobs existed. This perception continued to persist in this study and other perceptions also were influential in participants' decision to pursue a pharmacy residency.

Participant 1 aspired to work in critical care and academia and in order to do so he perceived that a residency was required. Furthermore, he felt that one needed to be "well-rounded" in order to be an efficient future practitioner. By completing a residency, Participant 1 thought that one could be on the frontline as part of the professional team in actually providing patient care. He stated that if you don't do a residency, "you have much less clinical

responsibility." Participant 10 also held this same belief based on his work as a pharmacy intern in a hospital. He stated:

> I also work as an intern at a local hospital, and a lot of the pharmacists I worked with had done residencies. So I knew early on that if you did a residency you had increased clinical responsibility, so that's kind of how I leaned towards doing a residency.

The perception that a residency is necessary in order to provide patient care was the reason why Participant 2 wanted to pursue a pharmacy residency. She thought that by becoming more specialized, she would have a better tool to serve her patients.

The perception that in order to directly work with patients requires residency training is sometimes based on what pharmacists and recent pharmacy graduates say. This was true for Participant 4. Based on her conversations with the pharmacists and recent pharmacy graduates at her hospital job, she perceived that in order to work directly in patient care, she would have to complete a pharmacy residency. Furthermore, she was always interested in psychiatry since high school and would have to complete two years of postgraduate residency in order to specialize.

Participant 5's decision to pursue a pharmacy residency was influenced by Participant 5's perception and observation that those who complete a pharmacy residency are better off in terms of clinical knowledge. She explained:

> I see how much better they are off. How much their level of clinical knowledge, not even from experience like clinical experience, but like their baseline is so much higher than other pharmacist because of them going to a residency.

She also did not want to work in a retail pharmacy since her experience working in one in order to gain her necessary Board pharmacy hours solidified this decision. Furthermore, she wanted to

pursue a pharmacy residency because of the perception that residents had more clinical knowledge than staff hospital pharmacists. She stated:

> A staff pharmacist in a hospital is basically a retail pharmacist in the community. Your verification in dispensing process and that is a very important process of the pharmacist but I wanted to be in a position where I was not only verifying orders but I was able to be giving recommendations and working with the patients and that in the medical team on decisions.

The negative images of retail pharmacy and staff hospital pharmacists influenced Participant 5 to pursue a pharmacy residency.

Participant 6 wanted "more options." She had seen different aspects of pharmacy from the IPPE rotations and she realized that she was not thrilled with the hospital setting but was not so sure about retail based on her experiences working in a retail pharmacy during pharmacy school. She was also concerned about the perception that one can only work in retail if one had not completed a pharmacy residency, based on what others were telling her. "If you don't do residency then basically the only pharmacy you could do is retail and I don't know if that's necessarily true but it did make me nervous." She also perceived that completing a pharmacy residency would make her a better pharmacist based on her mentor's comments such as:

> Residencies are, whether you look at it for doing it for a job or just doing it for more experience, it's going to help you in a long run because it's a huge learning year. You get a lot of experience all packed into one year and then it will just make you a better pharmacist in general, and just kind of give you that jump start into your professional career.

Participant 7's decision to pursue a pharmacy residency was similar to the same perceptions held by Participants 1, 2, 4, 5, and 6. She thought that there would be many more opportunities for pharmacists who do a residency, that a pharmacy residency was needed to become a clinical pharmacist, and that a residency would help her become a more competent and confident professional.

Participant 8 also perceived that there were more work opportunities in different areas for those who completed a pharmacy residency. She also perceived that a pharmacist could have a more clinical impact after completing a residency than the retail route, although working in retail was her back-up plan if she did not match for a pharmacy residency. She further had the perception that there was still more learning to do and that only a residency could provide the necessary learning.

Participant 9 identified two other reasons besides clinical faculty mentoring in influencing his decision to pursue a pharmacy residency. The first was the perception that a residency provides direct patient care rather than the dispensing model of pharmacy. The second was the perception that "direct patient care" is an up and coming "niche" for pharmacists and applying the knowledge gained from a residency was the best care for patients.

Connected element 6c: Barriers to residency that influenced decision. In studies assessing the motivating factors of pharmacy students in pursuing pharmacy residency and fellowship, Bucci et al. (1995) and McCarthy and Weber (2013) surveyed residents about the barriers to classmates who chose not to pursue a residency or fellowship. The authors found various barriers including financial obligations, family obligations, and the belief that their grades were not good enough to qualify for postgraduate training. In this study, participants also discussed several barriers that affected their decision to pursue a pharmacy residency. All of the

participants except for one ultimately decided to pursue a pharmacy residency for Fall 2015 due to their clinical faculty mentoring.

Uncertainty of one's capabilities was the barrier for Participant 1. He stated, "I wasn't sure if the workload of a residency program would be something I can keep up with." He was uncertain of his time management skills and leadership skills. He also had problems with public speaking, which he knew was something that pharmacy residents performed often.

Participant 2 was also uncertain of her capabilities. She lacked confidence, had self-doubt, and was not sure if her profile was competitive enough. She was also afraid, that as an older student, she would be too old to complete a residency and that residency programs would be uninterested in her. Furthermore, her family obligations to her older parents made her feel that she had to be close to them in order to help care for them, which limited her residency choices. She was also engaged and wanted to start a family soon and thought that the residency would prevent her from doing so.

Participant 3's barriers to pursuing a pharmacy residency stemmed from her personal relationship with her partner. She had concerns about how busy a residency would be and how to overcome that in the relationship. She was also concerned about her lack of exposure to the hospital setting since she had never had a job in the hospital.

Participant 4's personal life was a huge barrier to pursuing a pharmacy residency. She had married the previous year and did not feel that it would be fair to her spouse to pursue a pharmacy residency after the 4 years in pharmacy school. She also wanted to contribute financially to the marriage and a pharmacy residency may not have been enough to do so. In addition, Participant 4 wanted to take a break due to the burn-out and stress she experienced as a student. She explained, "I think maybe just being a little burnt out from being a student, (laughs)

and knowing that it's a huge, there's a lot to it, that there's huge time commitments." Due to her financial and family obligations, Participant 4 thought it best to not pursue a pharmacy residency right away. She planned to work as a hospital pharmacist and then apply to a pharmacy residency after a few years.

Participant 5 stated that there were no barriers to her pursuing a pharmacy residency. For Participant 6, it would be lack of access to a mentor that would have been a barrier for her if she did not have her clinical faculty mentor. She stated:

> I think there could have been a few just for the fact that if I didn't have this mentor I don't know if I would have taken his rotation, so then I don't know if I would have fallen in love with ambulatory care like I did.

Participant 7 had many barriers that affected her decision to pursue a pharmacy residency. She initially never thought about pursuing a pharmacy residency because she worked in retail pharmacy and enjoyed the patient interaction. She thought that the clinical pharmacy school curriculum engineered students to be clinical pharmacists so she did not think that a pharmacist needed the extra training to be considered a clinical pharmacist. She also had financial burdens from her student loans and wanted to start paying them off. Furthermore, the cost of an extra year of training while not getting a full pharmacist salary as a resident and having to defer the loans were additional barriers. She was tired of school and wanted to start her life. She stated, "You want to find some work or move, settle down, start living, and I feel like another year of projects and deadlines, and things like that is very strenuous." The pharmacy residency application process also added to her stress and she feared failure. She explained:

> It takes a lot of time and effort to send out the applications, write your letter of intent, get the letters of recommendation that you need, and go and visit the programs. Then you get

> interviews, you have to pay and fly and drive anywhere around the country that you're interested in. So I think it was a bit overwhelming process. So as far as . . . in short, (laughs) I thought it was just very overwhelming to me and I wasn't sure if the benefits were gonna outweigh the risk. And I think I was also scared. You know, what if I did it and I failed or I did it and I didn't get one or I tried and I just didn't like it. You know, you're dedicating a year of your time to something that you're not sure that you want. So, I think I was overwhelmed and scared.

Participant 8 was uncertain of her capabilities and lacked self-confidence. While she had always wanted to pursue a pharmacy residency, she was not sure if her grades were good enough. She said:

> I think it's hard when it comes to residency because I do think it is based on grades and I wish it wasn't just because I don't think that a grade defines you. I think that I'm really involved. I've done a lot of poster presentations, research, which I actually did research with that mentor. I have a really good personality. I work really well with people. So, I think the main thing that was dragging me down was definitely my grades and I can't really think of anything else. I really think other than that, I'm well rounded.

Participant 9's barriers to pursuing a pharmacy residency were financial and the perception of the nature of the residency work. He stated:

> Really at that point, it was kind of a financial standpoint. There was a lot of school loans coming out, pretty tough to take about a third of the pay or community versus a residency. And I kind of felt like at that point that it was almost . . . I had heard that a lot of the residencies were kind of like you did a lot of the work that nobody else wanted to do (giggles) so that was kind of hearsay. I mean, of course, there are residencies out there

> that you work under that person but that's what I utilize ASHP for. . . . Basically, for Midyear, I really didn't go there to find the program. I kind of went there to find the programs that I didn't want to apply to. It was kind of . . . It was my thinking that it really seemed like I was going to be just somebody's minion, I guess you could say it and doing all their dirty work. I didn't want to be a part of that. I wanted to be treated as a pharmacist.

Participant 10's barrier that affected her decision to pursue a pharmacy residency was the financial costs of the residency process. She stated, "I think it's an expensive process and I think that money deters people from pursuing a residency."

The participants had various barriers to pursuing a pharmacy residency that affected their decision to pursue postgraduate training. While these barriers, such as family and financial obligations, could have dissuaded the participants from pursuing a pharmacy residency, the mentoring relationships helped them overcome these barriers. However, for Participant 4, despite her mentoring relationship, the barriers could not be overcome, and therefore, she did not apply for a pharmacy residency for Fall 2015. Nevertheless, she hopes to pursue a pharmacy residency in a few years.

Theme 7: Need for formal mentoring programs.

Organizations have implemented formal mentoring programs to try to replicate the positive benefits found in informal mentoring relationships. School of Pharmacy A and School of Pharmacy B do not have formal mentoring programs. Consequently, some participants in this study felt that creating a formal mentoring program at their schools would be helpful for students, especially for those students who had not found their own mentor.

Participant 2 felt that mentorship is very important and thinks that the School of Pharmacy A should have a formal mentoring program. She stated:

> I think that's really important because sometimes students don't always express when they're struggling or they're confused and so having someone there that says that, reaches out without the student reaching out. I think that's important. That will help, definitely, students try to go towards residency. I think so.

Participant 6 also felt that a formal mentoring program would be beneficial at the School of Pharmacy B but that the interests of both mentee and mentor should be laid out in order for the program to be successful. She explained:

> I think a formal mentoring program would be good . . . as long as . . . I mean I don't really know how it would work but I feel like I didn't really pick my mentor, it just kind of happened. You know what I mean? But if you had a mentoring program where all the interests were laid out and you know when you're looking at, well you're interested in, and maybe just like personalities, and how you can get along with the person. I think that would be a good program.

Participant 7 expressed her thoughts that a formal mentoring program at the School of Pharmacy B would be beneficial because the students could be exposed to more than one mentor and different mentoring styles. She explained:

> So I think you could never have enough mentors. I think you could have a mentor of any age and they're going to be able to provide you with different insight, and different knowledge, and . . . so yes, the answer to your question (laughs), is I do believe School of Pharmacy B would benefit from a formal mentoring program because I think that what one mentor can get through to a person, the other mentor may not be able to, or . . . I

> think that different people have different styles of mentoring and I think that it's really important for people to really see different opportunities.

Participant 8 felt that a formal mentoring program at the School of Pharmacy B would be a great idea, especially to help the students who are not as involved in school. Participant 8 stated:

> I think having every student have someone because sometimes it's hard for the teachers, to build a relationship with everyone. I think it has to do with personality or even just by being involved and that's how you get to know the teachers. So students that aren't as involved, they may not get to know the teacher and not have as much guidance as maybe they might like to. So, from the beginning having a mentor for each student might be nice.

While Participant 10 believed that the School of Pharmacy B would benefit from a formal mentoring program, she also stated that a survey should be used to decide the mentor/mentee mentoring relationship. She explained:

> I think that School of Pharmacy B would benefit from maybe doing a survey and then appointing a mentor based on the student's interest, rather than somebody who just manages their coursework. I think that it would definitely benefit students.

Some participants expressed the need for a formal mentoring program at their pharmacy schools. Their opinions as to why varied but showed the gaps that a formal mentoring program could fulfill if it was implemented at these schools of pharmacy.

Summary

Seven themes and connected elements were identified in this study. Theme 1 identified the type of mentoring relationship participants had with their mentors. All the mentoring

relationships began informally through five different informal pathways. All of the participants had positive mentoring experiences. Three participants described negative experiences that ultimately became positive learning experiences for them.

Theme 2 identified the psychosocial mentoring functions utilized by the clinical faculty mentors. All participants experienced role-modeling and counseling. All participants except for Participant 5 experienced acceptance-and-confirmation. Participants 6 through 10 experienced friendship.

Theme 3 identified mentor characteristics described by participants. Participants identified 58 mentor characteristics that helped support the mentoring process. Of the 58 mentor characteristics identified, helpfulness and professionalism were predominant and described by six participants. The second most described mentor characteristics were knowledgeable and listened, which were experienced by five participants.

Theme 4 identified mentee characteristics as described by participants or observed by researcher. Of the 25 mentee characteristics identified, the go-getter characteristic was observed by the researcher in eight participants. The second most occurring characteristics identified by the majority, active in student organizations and motivated, were experienced by seven participants. All participants except for Participant 6 described their transformative changes, especially gaining confidence in their capabilities.

Theme 5 identified that the time spent with mentor could not be consistently quantified and that the quality of time spent with mentor was more important than quantity of time spent with mentor. Theme 6 identified the decision-making that participants undertook in finalizing their decision to pursue a pharmacy residency. Influential factors from the mentoring relationship experiences varied while perceptions of residency and barriers to pursuing a pharmacy residency

impacted their decision. Theme 7 identified the need for formal mentoring programs that could help students become more involved in school activities and expose them to different mentoring styles. Conclusions drawn from these findings are discussed in Chapter 5.

CHAPTER 5

DISCUSSION/SUMMARY/CONCLUSIONS

This study examined pharmacy students' perception of clinical faculty mentoring characteristics that influence their decision to pursue a pharmacy residency. Additionally, this study sought to answer the following research questions:

1. Does Professional Year 4 (PY4) students' decision to pursue pharmacy residency relate to mentoring from clinical faculty?
2. What clinical faculty mentoring experiences are influential in pharmacy students' decision to pursue postgraduate residency?
3. What factors in the mentoring relationship between clinical faculty and pharmacy students are influential in pharmacy students' decision to pursue pharmacy residency?
4. What are the perceptions and experiences of protégés in regards to psychosocial functions utilized by clinical faculty?
5. From the perspective of pharmacy students, what are the perceived personal qualities of clinical faculty that are influential in their decision to pursue postgraduate clinical training?

This chapter first presents a summary of the findings from Chapter 4, leading to a discussion of the research questions. Recommendations and implications for practice are also discussed. Implications for future research conclude this chapter.

Summary of Findings

Various national pharmacy organizations such as ASHP and ACCP have concluded that a mandatory postgraduate pharmacy residency by 2020 is necessary in order to meet the changing demands of pharmacy practice (ASHP, 2014; Murphy et al., 2006). While research has shown

that mentoring was important in motivating pharmacy students to pursue residency training (Bucci et al., 1995; Fit, 2005; McCarthy & Weber, 2013; McCollum & Hansen, 2005), there lacks an in-depth look at the role of clinical faculty mentoring in influencing students to pursue postgraduate pharmacy residency. This phenomenological study sought to provide additional understanding of students' mentoring experiences with clinical faculty.

Through the coding process of the data (Tesch, 1990), themes and key connected elements were made apparent. From these, the "essence" of the mentoring phenomenon emerged that provided meaning regarding how clinical faculty mentoring played a role in students' decision to pursue a pharmacy residency. The following themes were identified that helped answer the research questions: (a) type of mentoring relationship, (b) mentoring functions, (c) mentor characteristics, (d) mentee characteristics, (e) time spent with mentor, (f) decision-making, and (g) need for formal mentoring programs.

Kram (1983) identified four phases of the mentoring relationship: (a) initiation, (b) cultivation, (c) separation, and (d) redefinition. All of the mentoring relationships in this study spanned the first two phases while there was the start of a separation phase between the students and their mentors. The fourth phase, redefinition, was not reached by participants. Kram (1983) defined the redefinition phase as the time when the mentoring relationship changes significantly by evolving into a new entity or the relationship terminates. While Kram (1983) acknowledged that mentoring relationships can vary in length, the average length of the 18 developmental relationships that she studied was 5 years. Within the length of the mentoring relationship, 6 to 12 months is the initiation phase, 2 to 5 years is the cultivation phase, 6 months to 2 years is the separation phase, and an indefinite period for the redefinition phase. Since most of the mentoring relationships in this study spanned 2-3 years, not enough time had elapsed for the participants to

reach the redefinition phase. Furthermore, none of the mentoring relationships had ended at the time of the interviews; nor had the mentoring relationships changed significantly whereby the mentees achieved peer status to their mentors.

Mentoring relationships could also be initiated formally or informally. All ten of the mentoring relationships began informally because the sites of this study did not have formal mentoring programs. Additionally, all of the mentoring relationships were positive. While three participants did have negative experiences with their mentors, they learned from the negative episodes, which ultimately contributed positively to their mentoring relationships. In settings with formal mentorship programs, informal mentoring still occurs.

This study focused on the psychosocial mentoring functions rather than career mentoring functions identified by Kram (1983, 1985). All participants experienced the role-modeling and counseling psychosocial mentoring functions provided by their clinical faculty mentors. Acceptance-and-confirmation was experienced by all participants except for one participant. Only six participants experienced friendship.

Mentoring literature has shown that mentor and mentee personalities affect the mentoring relationship (Ragins & Kram, 2007). Participants identified 58 mentor characteristics that helped support the mentoring process. While the mentor personality traits identified by participants varied and the relative importance of the mentor characteristics were not ranked, helpfulness and professionalism were the predominant mentor characteristics that were experienced by the majority of participants. “Knowledgeable” and “listened” were the second most described mentor characteristics experienced by five participants.

In this study, there were 25 mentee characteristics identified by participants or observed by the researcher. While these traits were not ranked by participants and therefore the relative

importance of each mentee characteristic cannot be concluded, the researcher did observe that the majority of participants possessed the "go-getter" trait. According to the online Merriam-Webster dictionary (2015), go-getter is defined as "a person who works very hard and who wants very much to succeed." These participants actively pursued relationships with their clinical faculty mentors and as a result of their efforts, mentoring relationships developed that allowed for many of the participants to become more confident in their capabilities and undergo transformative changes. Being active in student organizations and motivated were the second most described mentee characteristics experienced by seven participants.

Time spent with the mentor was another theme from this study. Past mentoring research has shown that the frequency of interaction has a positive effect on informal relationships (Noe et al., 2002). Thus, organizations have implemented formal mentoring programs with specified meeting frequency in order to garner the positive effects found in informal mentoring relationships. In this study, the time spent with their mentors varied. Other than when participants had Advanced Pharmacy Practice Experiences (APPE) rotations with their mentors and thus met on a daily basis, time spent with mentor could not be consistently quantified. One mentoring pair met once a month while another would talk or email approximately twice a week. Instead of the quantity and frequency of time spent with mentor that was important to the mentoring relationship, it seems that what was more important to the participants was the quality of time spent with their mentor. Flexibility with time was also an important aspect.

Prior to the start of the mentoring relationships, participants either wanted to pursue a pharmacy residency from the beginning, unsure whether to pursue postgraduate residency, or did not consider doing a pharmacy residency. After the mentoring relationships began, participants who had always wanted to pursue a pharmacy residency had their decision reinforced, and for

those who were unsure or did not think to pursue a pharmacy residency, they were influenced to change their minds to pursue a pharmacy residency.

Some of the most influential factors that impacted participants' decision to pursue a pharmacy residency were the extensive clinical knowledge that mentors gained from their own residencies; the confidence that mentors had in their mentees, which helped to mitigate mentees' doubts in their capabilities; and the respect that mentees observed that their mentors received from colleagues and patients during their rotations. In addition to these influential factor(s), perceptions of the benefits of residency also helped to influence participants' decision to pursue a pharmacy residency. Some participants perceived that a residency was required for certain jobs such as in pharmacy academia, that completing a residency would garner the participant more clinical responsibilities, especially in a hospital setting, and that those who did not complete a pharmacy residency could only work in a retail setting. Besides these perceptions, participants also identified barriers that affected their decision to pursue a pharmacy residency such as family obligations, financial obligations (student loans), uncertainty of capabilities, and suffering from burn-out and stress from pharmacy school. Mentoring relationships allowed all participants, except for one, to overcome their barriers and ultimately decided to pursue a pharmacy residency for Fall 2015.

Participants in this study expressed the need for formal mentoring programs at the School of Pharmacy A and the School of Pharmacy B. Some participants felt that a formal mentoring program would benefit those who did not find a mentor on their own. Others felt that it would be beneficial for students to be exposed to different mentoring styles and that in order for formal mentoring programs to be successful, the interests of both mentor and mentee should be laid out.

The seven major themes that were identified through data analysis presented the mentoring experiences of the participants. Furthermore, they informed the research questions as discussed in the next section.

Discussion of Research Questions

This study was designed to address five research questions: Does Professional Year 4 (PY4) students' decision to pursue pharmacy residency relate to mentoring from clinical faculty? What clinical faculty mentoring experiences are influential in pharmacy students' decision to pursue postgraduate residency? What factors in the mentoring relationship between clinical faculty and pharmacy students are influential in pharmacy students' decision to pursue pharmacy residency? What are the perceptions and experiences of protégés in regards to psychosocial mentoring functions utilized by clinical faculty? From the perspective of pharmacy students, what are the perceived personal qualities of clinical faculty that are influential in their decision to pursue postgraduate clinical training?

Research Question 1: Does Professional Year 4 (PY4) students' decision to pursue pharmacy residency relate to mentoring from clinical faculty?

Based on the results of the study, the answer is yes. Some participants always knew they were going to pursue a pharmacy residency. Mentoring from their clinical faculty mentors helped to reinforce their decisions. For those who were unsure or never planned on pursuing postgraduate training, clinical faculty mentoring influenced their decision. The mentoring helped those who were unsure to become more decisive in their decision while for those who never planned to pursue a pharmacy residency, the clinical faculty mentoring helped to change their career aspirations and trajectory.

Research Question 2: What clinical faculty mentoring experiences are influential in pharmacy students' decision to pursue postgraduate residency?

The clinical faculty mentoring experiences that were the most influential in pharmacy students' decision to pursue a pharmacy residency varied among participants. Some participants were impressed by the knowledge that their mentors gained from their own residencies. Others were influenced by the mentors' confidence in the participants' capabilities, which helped participants overcome their insecurities. Observing the respect that their clinical faculty mentors garnered from their colleagues and patients during APPE rotations also helped to influence participants to pursue a pharmacy residency. It should be noted that participants were also influenced by their perceptions of the benefits of a pharmacy residency that were not tied to clinical faculty mentoring but more to what they learned on their own from either their work experience in hospital or retail or what they had heard from pharmacists or recent graduates.

Research Question 3: What factors in the mentoring relationship between clinical faculty and pharmacy students are influential in pharmacy students' decision to pursue pharmacy residency?

All of the mentoring relationships began informally. Due to the go-getter attitude of the majority of participants, the mentoring relationships were initiated and cultivated over time. The positive experiences with their mentors allowed the mentees to develop leadership skills and undergo transformative changes. All participants except for one became more confident in their abilities, especially their capability of completing a pharmacy residency. Some participants had negative initial experiences that turned out positive because they learned from their experiences and benefitted from them. Time spent with mentor varied and could not be quantified. Participants stated that it was the quality of time and not necessarily the quantity of time that was

more influential. Utilization of psychosocial mentoring functions by clinical faculty and mentor characteristics were also influential in pharmacy students' decision to pursue a pharmacy residency.

Research Question 4: What are the perceptions and experiences of protégés in regards to psychosocial mentoring functions utilized by clinical faculty?

All participants experienced role-modeling and counseling by their clinical faculty mentors. All participants except for one experienced acceptance-and-confirmation while only six participants experienced friendship. While their experiences varied with regards to the psychosocial mentoring functions, participants were able to observe and develop their own professional behaviors, receive support and encouragement from their mentors, have their mentors act as a sounding board, and for some participants, experience friendship that extended beyond the student/teacher relationship.

Research Question 5: From the perspective of pharmacy students, what are the perceived personal qualities of clinical faculty that are influential in their decision to pursue postgraduate clinical training?

The pharmacy students in this study perceived 58 mentor qualities that helped support the mentoring process. The relative importance of these mentor characteristics was not ranked, but helpfulness and professionalism were identified by the majority of participants, which were experienced by six participants (more than half of the sample). Mentors who listened and were knowledgeable were the next second greatest mentor characteristics identified by five participants that influenced their decision to pursue a pharmacy residency.

Recommendations

In order to meet the changing demands of the field of pharmacy and the possibility of mandatory postgraduate residency by 2020, pharmacy schools should prepare their students to pursue a pharmacy residency. One of the ways to encourage students to pursue a pharmacy residency program is through a formal mentoring program. To increase the effectiveness of a formal mentoring program, schools need to ensure that the mentor/mentee dyad is well matched. As noted by one of the participants in this study, a formal mentoring program can only be successful if the interests and personalities of those in the mentoring relationship are similar. Having students and clinical faculty surveyed prior to the start of the students' pharmacy schooling can help identify and match those with similar interests and career goals. At the same time, mentors need to be given time to meet with their mentees. Otherwise, busy and hectic schedules can cause frustration among the mentors and/or mentees (Brown & Hanson, 2003). Goals for the formal mentoring program should be well defined and communicated to all involved at the onset of the formal mentoring program. Witry, Patterson, and Sorofman (2013) conducted a qualitative study whereby student expectations and preferences for formal mentoring programs were investigated, which led to an evaluation model for formal mentoring in pharmacy education. This model could be used to help create, guide, and assess the success of a formal mentoring program.

Law et al. (2014) created a checklist for the development of faculty mentorship programs. The authors' recommendations were aimed at helping with faculty development. However, the recommendations are certainly applicable and can be modified for implementation of a formal mentoring program for students. Some recommendations included defining the mentor role prior

to the start of the program, obtaining key resources such as time and staff support in order for the program to be successful, and utilizing multiple mentors.

Barriers and challenges to implementing formal faculty mentorship programs in pharmacy academic settings were discussed by Kohn (2014). In 2006, the University of North Carolina Eshelman School of Pharmacy implemented the Bill and Karen Campbell Faculty Mentoring Program (CMP) to mentor junior faculty who were interested in the scholarship-intensive career track. Kohn (2014) found that there were key elements necessary for a successful faculty mentoring program which included: (a) clearly defining what mentoring is and is not within the academic institution; (b) having a supportive administration, which recognizes mentors through stipends, release time, and merit review; (c) dedicated mentors who have frequent interactions with their junior faculty mentees; and (d) having a visible director who implements the program, monitors its success, and is willing to make changes based on the results.

Results from implementing a graduate student-led mentoring program to increase student interest in research and graduate school at the Purdue University College of Pharmacy shed light on the barriers and challenges to implementing formal student mentoring programs in a pharmacy academic setting (Melton et al., 2014). According to Melton et al. (2014), roadblocks existed during the recruitment, matching, and engagement and retention of mentors and mentees phases of the program. The authors noted that program visibility was crucial to recruitment of mentors and mentees in order for the program to be successful. Emails, in-class announcements, and newsletters were used to recruit mentors and mentees that otherwise may have been missed. Besides promoting the program visibility, faculty support of their graduate students' participation and support from the college Dean, Associate Deans, and Department heads were also important

to the successful implementation of a formal mentoring program. Melton et al. (2014) also found that matching mentors and mentees by research interests and availability resulted in productive working relationships. However, some mentors, who were matched with multiple mentees during the pilot study, experienced stress from time and resource constraints. When mentors were not given time to meet with mentees and were stretched too thin among multiple mentees, frustration could occur. Based on the authors' experiences, a well-defined program with clear objectives is important for mentor and mentee engagement and retention and the success of the formal mentoring program (Melton et al., 2014).

The benefits of having mentor guidance improved career outcomes, as opposed to not having a mentor, are well known (Allen et al., 2004). The challenge is in finding a well-matched mentor with similar professional and nonprofessional interests who are keen to be involved in mentoring. While a formal mentoring program may help address this challenge, there may still be students unable to find and develop a beneficial mentor/mentee relationship. Research has shown that mentee qualities also affect the ability to attract a mentor (Allen, 2003). Allen (2003) found that mentors were more likely to mentor protégés who were high in ability and willingness to learn. Students need to volunteer and seek out more challenging assignments from their clinical faculty or other preceptors during their Introductory Pharmacy Practice Experiences (IPPE) and APPE rotations. They need to build relationships and network with individuals from work or pharmacy organizations who can also offer advice about pharmacy residency. Furthermore, they need to seek out multiple mentors from school, work, or rotations who have similar professional and nonprofessional interests who can help guide and mentor them. Hopefully, these relationships can evolve into trusted mentors over time.

Some participants in this study stated that they lacked the confidence in their leadership skills to pursue a pharmacy residency. If it was not for their clinical faculty mentoring, these same participants may not have applied for postgraduate clinical training. To address this issue, schools can create didactic courses that focus on improving leadership skills. Sorensen et al. (2009) developed and implemented a pharmacy course on leadership at the University of Minnesota College of Pharmacy in order to help students develop a better understanding of leadership and to practice leadership skills. Students reported that the course was useful to help them prepare to become leaders (Sorensen et al., 2009). By building the confidence of students in their leadership abilities, pharmacy schools can help influence students to pursue a pharmacy residency.

Implications for Practice

The primary objective of this study was to understand the essence of the mentoring experiences of pharmacy students through the use of phenomenology (Creswell, 2013; Merriam, 2009). The essence of mentoring, as described in this study, reflects the experiences of study participants at a specific time in their lives at the School of Pharmacy A and the School of Pharmacy B. Therefore, results are not generalizable to the general population. However, the central finding from this study that clinical faculty mentoring does influence students' decision to pursue a pharmacy residency fills a gap in pharmacy mentoring literature. This study sheds light on pharmacy students' experiences with clinical faculty mentoring in relation to PY4 students' decision to pursue a pharmacy residency, which can help pharmacy schools to implement formal mentoring programs. Furthermore, results from this study will add to the plethora of research on mentoring, which can guide researchers on future inquiry into pharmacy mentoring.

Implications for Future Research

This study was not without limitations. According to Merriam (2009), qualitative research that provides rich, thick descriptions of the findings presented in quotes from participant interviews and maximum variation of the sample can enhance the transferability of the results to another setting. Since participants were from two private schools of pharmacy out of the 134 U.S.-based private or public colleges or schools of pharmacy, and thus maximum variation of the sample was not achieved, findings from this study are not transferrable to other schools or colleges of pharmacy. Also, since participants were self-selected, additional viewpoints may have been missed. Future research can include a larger number of participants from more schools of pharmacy.

This study focused on the mentee experiences in the mentoring relationship. Future work could explore the mentoring relationship from the mentor perspective. Past mentoring research has also delved into the roles of race and gender (Ragins & Kram, 2007). It would be interesting for future studies to evaluate the impact of clinical faculty mentoring on the decision of minorities to pursue a pharmacy residency and how gender and racial differences come into play. Participants in this study identified barriers to pursuing a pharmacy residency, which clinical faculty mentoring helped the students to overcome. Future research should focus on the perspectives of those who chose not to pursue a pharmacy residency and why clinical faculty mentoring was not able to influence these students to pursue postgraduate training. Information regarding whether participants matched for residency was not collected in this study. Future studies may also focus on whether there is a correlation between clinical faculty mentoring and matching for a residency, which can lead to a better understanding of this relationship. Having a better understanding of the mentoring relationship between pharmacy students and clinical

faculty can help schools of pharmacy implement formal mentoring programs that will help students be more successful in matching for a pharmacy residency. When pharmacy students complete pharmacy residency training, they will be more prepared to enter the changing landscape of pharmacy and healthcare and become the leaders in the field of pharmacy.

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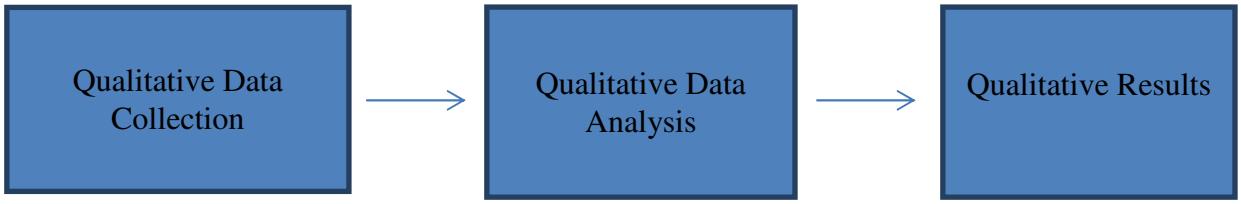
APPENDIX A: RESEARCH DESIGN MODEL

Procedures:	**Procedures:**	**Procedures:**
Semi-structured interviews with open-ended questions	Member check after preliminary data analysis	Represent qualitative data analysis



Products:	**Products:**	**Products:**
Audio-recordings or video-recordings and researcher's written notes	Coded themes	Discussion of resultant themes

APPENDIX B: IRB APPROVAL

UNIVERSITY OF NEW ENGLAND
Institutional Review Board
Olgun Guvench, Chair

Biddeford Campus
11 Hills Beach Road
Biddeford, ME 04005
(207)602-2244 T
(207)602-5905 F

Portland Campus
716 Stevens Avenue
Portland, ME 04103

To: Kin Ly, Pharm.D.

From: Lliam Harrison

Date: September 19, 2014

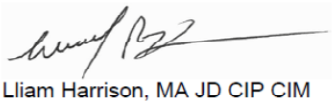
Project Title: Examining Clinical Faculty Mentoring Characteristics that Influence Students' Decision to Pursue a Pharmacy Residency (IRB082214-009)

The Institutional Review Board (IRB) for the Protection of Human Subjects has reviewed the application materials you submitted in connection with the above captioned project, and has determined that the proposed work is exempt from IRB review and oversight as defined by 45 CFR 46.101(b)(1).

Please contact the IRB before any implementing any changes to the study or immediately upon learning of an adverse event or injury to any study participant.

Please contact Lliam Harrison at (207) 602-2244 or wharrison@une.edu with any questions.

Sincerely,



Lliam Harrison, MA JD CIP CIM
Director of Research Integrity
IRB Administrator

IRB# IRB082214-009
Submission Date: August 22, 2014
Status: Exempt, 45 CFR 46.101(b)(1)
Status Date: September 16, 2014

APPENDIX C: OTHER IRB LETTER AND EMAIL

Dr. William Harrison, MA, JD, CIP, CIM

Director of Research Integrity

University of New England

Institutional Review Board

August 12, 2014

Dear Dr. Harrison,

The School of Pharmacy B Institutional Review Board (IRB) has been notified that the application entitled: "Examining Clinical Faculty Mentoring Characteristics that Influence Students Decision to Pursue a Pharmacy Residency" submitted by Dr. Kin Ly is currently under review by the UNE IRB. According to School of Pharmacy B IRB procedures, School of Pharmacy B IRB should be notified about any research to be conducted by a School of Pharmacy B researcher (faculty, staff, administrators, or students) and reviewed by an outside IRB. However, the School of Pharmacy B IRB office **will NOT conduct a review of such research. Therefore, the PI is exempt from submitting a second application to our IRB.**

Please, feel free to contact me at email address or telephone number should you have any questions.

Sincerely,

Name

Associate Professor

IRB Chair

Address of School of Pharmacy B

Email from the Chair of the IRB Committee at the School of Pharmacy A

From: Chair of the IRB Committee at the School of Pharmacy A
Sent: Thursday, August 07, 2014 8:55 AM
To: UNE Institutional Review Board
Cc: William Harrison; Kin Ly; Dean of the School of Pharmacy A
Subject: Examining Clinical Faculty Mentoring Characteristics that Influence Students

Dear Dr. Harrison,

Ms. Kin Ly has received permission from the Dean of the School of Pharmacy A to use students of the school as subjects for her study "Examining Clinical Faculty Mentoring Characteristics that Influence Students' Decision to Pursue a Pharmacy Residency." While I have not seen the final protocol, it is my understanding that she would like our students to provide responses to a survey anonymously. We determined that if a designee of our school sends the survey (after it has been approved by her institution's IRB), she does not need our IRB's approval. I will be sending a letter to that effect. Please let me know if I may be of further assistance. Thanks!

Name

Chair of the IRB Committee

School of Pharmacy A

Address of the School of Pharmacy A

APPENDIX D: PERMISSIONS TO CONDUCT STUDY

University of New England

Institutional Review Board

c/o William Harrison, MA, JD, CIP, CIM

Director of Research Integrity

Pickus Room 108

11 Hills Beach Road

Biddeford, ME 04005

August 12, 2014

Dear UNE Instutional Review Board,

Kin S. Ly has my permission to conduct her research study entitled "Examining Clinical Faculty Mentoring Characteristics that Influence Students' Decision to Pursue a Pharmacy Residency" at School of Pharmacy B. As noted by the IRB Chair at School of Pharmacy B, Name of Chair, Kin S. Ly is exempt from submitting a second application to our IRB and will accept UNE's approval of her IRB application.

Please feel free to contact me at email address or telephone number should you have any questions.

Sincerely,

Name

Dean and Professor

School of Pharmacy B

Address of the School of Pharmacy B

August 19, 2014

William Harrison

University of New England IRB

716 Stevens Avenue

Portland, ME 04103

Dear Mr. Harrison:

As per Dr. Kin Ly's request, I am informing the IRB that she has permission to conduct a pilot study utilizing our student data for the project entitled "Examining Clinical Faculty Mentoring Characteristics that Influence Students' Decision to Pursue a Pharmacy Residency." Please do not hesitate to ask if you have any questions regarding this issue.

Sincerely,

Name

Dean & Professor

(from the School of Pharmacy A)

APPENDIX E: EMAIL COVER LETTER (LETTER OF INTRODUCTION)

Subject: Examining Pharmacy Students' Perceptions of Clinical Faculty Mentoring Characteristics Influencing Students' Decision to Pursue a Pharmacy Residency.

Month, day, year

Dear Colleague,

As a Professional Year 4 (PY4) pharmacy student, you may be considering applying for a postgraduate pharmacy residency. I am conducting a doctoral research study to examine pharmacy students' perception of clinical faculty mentoring characteristics that influence their decision to pursue postgraduate clinical training. I also want to explore the factors in the mentoring relationship between clinical faculty and pharmacy students that influence their decision to pursue a pharmacy residency. Your participation in an interview can greatly enhance our understanding of mentoring in the field of pharmacy. This doctoral research project will take approximately a year to complete.

Your participation in this research is voluntary. Any information obtained during this study that could identify you will remain confidential. You will remain anonymous in any report of the findings. Only the researcher will have access to the data. Use of the data obtained from this study will be limited to this research, as authorized by the University of New England Institutional Review Board. Hopefully, however, information obtained from this study may be published in journals or presented at conferences.

There are no known risks associated with this research. You may ask the researcher questions concerning this research prior to agreeing to participate in this study at kly@une.edu or (207) 956-3598. If you have additional questions that the researcher was unable to answer, you may contact Olgun Guvench, M.D. Ph.D., Chair of the UNE Institutional Review Board at oguvench@une.edu or (207) 221-4171.

I greatly appreciate your participation in this research. The interview will be via Zoom® and will take approximately 30-60 minutes to complete. Participants will receive a $10.00 gift card for their time. Please click on the link below and indicate your interest to either participate or not participate in this study.

[Insert link to SurveyMonkey® here:

☐ Yes, I am interested in participating in this study.

☐ Yes, I can identify a clinical faculty member (defined as an assistant professor, associate professor, or professor from the pharmacy practice department) as a mentor.

☐ No, I am not interested in participating in this study.]

Thank you for your time and your valuable assistance with my doctoral research!

Sincerely,

Kin S. Ly, PharmD
University of New England
Doctor of Education Candidate
(207) 956-3598; kly@une.edu

APPENDIX F: FOLLOW-UP EMAIL (FOR TWO REMINDERS)

Subject: Examining Pharmacy Students' Perceptions of Clinical Faculty Mentoring Characteristics Influencing Students' Decision to Pursue a Pharmacy Residency.

Month, day, year

Dear Colleague,

You should have received an email regarding the study, "Examining Pharmacy Students' Perceptions of Clinical Faculty Mentoring Characteristics Influencing Students' Decision to Pursue a Pharmacy Residency" approximately one (or two) week(s) ago. To reiterate, as a Professional Year 4 (PY4) pharmacy student, you may be considering applying for a postgraduate pharmacy residency. I am conducting a doctoral research study to examine pharmacy students' perception of clinical faculty mentoring characteristics that influence their decision to pursue postgraduate clinical training. I also want to explore the factors in the mentoring relationship between clinical faculty and pharmacy students that influence their decision to pursue a pharmacy residency. Your participation in an interview can greatly enhance our understanding of mentoring in the field of pharmacy. This doctoral research project will take approximately a year to complete.

Your participation in this research is voluntary. Any information obtained during this study that could identify you will remain confidential. You will remain anonymous in any report of the findings. Only the researcher will have access to the data. Use of the data obtained from this study will be limited to this research, as authorized by the University of New England

Institutional Review Board. Hopefully, however, information obtained from this study may be published in journals or presented at conferences.

There are no known risks associated with this research. You may ask the researcher questions concerning this research prior to agreeing to participate in this study at kly@une.edu or (207) 956-3598. If you have additional questions that the researcher was unable to answer, you may contact Olgun Guvench, M.D. Ph.D., Chair of the UNE Institutional Review Board at oguvench@une.edu or (207) 221-4171.

I greatly appreciate your participation in this research. The interview will be via Zoom® and will take approximately 30-60 minutes to complete. Participants will receive a $10.00 gift card for their time. Please click on the link below and indicate your interest to either participate or not participate in this study.

[Insert link to SurveyMonkey® here:

☐ Yes, I am interested in participating in this study.

☐ Yes, I can identify a clinical faculty member (defined as an assistant professor, associate professor, or professor from the pharmacy practice department) as a mentor.

☐ No, I am not interested in participating in this study.]

Thank you for your time and your valuable assistance with my doctoral research!

Sincerely,

Kin S. Ly, PharmD
University of New England
Doctor of Education Candidate
(207) 956-3598; kly@une.edu

APPENDIX G: FINAL FOLLOW-UP EMAIL AND THANK YOU

Subject: Thank you.

Month, day, year

Dear Colleague,

Thank you for taking the time to respond to my email(s), indicating your interest in participating in this study. If you are selected for an interview, you will be emailed an Informed Consent Form. Please take the time to read this and respond. Once your response to the Informed Consent Form is received, I will contact you via email to set up a time for the interview. The interview will take place via Zoom®. If you would still like to participate, please follow this link:

[Insert link to SurveyMonkey® here:

☐ Yes, I am interested in participating in this study.

☐ Yes, I can identify a clinical faculty member (defined as an assistant professor, associate professor, or professor from the pharmacy practice department) as a mentor.

☐ No, I am not interested in participating in this study.]

I look forward to conducting interviews with some select individuals over the next month or two months. Thank you again for your valuable time and assistance with my doctoral research!

Sincerely,

Kin S. Ly, PharmD
University of New England
Doctor of Education Candidate
(207) 956-3598; kly@une.edu

APPENDIX H: INFORMED CONSENT FORM

Project Title: Examining Pharmacy Students' Perceptions of Clinical Faculty Mentoring Characteristics Influencing Students' Decision to Pursue a Pharmacy Residency.

Principal Investigator: Kin S. Ly, PharmD, University of New England, kly@une.edu or 207-956-3598, Lead advisor: Dr. Carey Clark, cclark14@une.edu; Support advisor: Dr. Michelle Collay, mcollay@une.edu or 207-602-2010.

Dear Interview Participant:

You have been asked to participate in a research study on the characteristics of clinical faculty mentoring and how or whether these mentoring experiences have influenced your decision in pursuing a postgraduate pharmacy residency. This study is being conducted by Kin S. Ly and is for her Ed.D. dissertation at the University of New England.

Please read this form that has been emailed to you. You may also request that the form is read to you prior to the actual scheduled interview. The purpose of this form is to provide you with information about this research study, and if you choose to participate, document your decision. You are encouraged to ask any questions that you may have about this study, now, during or after the project is complete. You can take as much time as you need to decide whether or not you want to participate. Your participation is voluntary.

Why is this study being done?

The purpose of this study is to explore the characteristics of clinical faculty mentoring in relation to Professional Year 4 (PY4) students' decision to pursue pharmacy residency.

Who will be in this study?

You have been identified as a potential participant due to your email response to the principal investigator's email(s) requesting your participation. Your response indicated voluntary participation.

You must be at least 18 years of age to participate and in your Professional Year 4 (PY4) at School of Pharmacy A (School of Pharmacy B). You must also plan to apply to a pharmacy residency program sometime in the future or have already applied to a postgraduate pharmacy residency program by the time of the scheduled interview with the researcher. Acceptance into a pharmacy residency is not a requirement.

There will be approximately 10-15 (four for pilot study) participants involved. The number of participants involved will depend on the number that volunteer and the amount of data generated. The number of participants may be less than 10-15 if sufficient data is received from a smaller number of participants.

What will I be asked to do?

You will be asked to participate in an interview via Zoom® with the principal investigator that will last between 30-60 minutes. You will be asked a series of open-ended questions about your mentoring experiences with your clinical faculty mentor. Once the data is transcribed and analyzed, you will be emailed a transcription of the interview, asking you to verify if the transcription is correct. This is called member checking, which helps with the internal validity of the study. As a participant, you are also asked to be available until August 2015 in case you have to be re-interviewed if the recording of the interview is unable to be accessed.

Participants in this study will receive a $10.00 gift card as compensation for participation in this project. Receipt of this compensation is not dependent on completion of the interview, nor verification of the transcription of the interview.

What are the possible risks of taking part in this study?

There are no reasonable foreseeable risks or discomfort associated with participation in this study.

What are the possible benefits of taking part in this study?

There are no direct benefits to you for participating in this study. There may be indirect benefits to others such as pharmacy education, businesses, and healthcare.

What will it cost me?

There will be no cost to you for participating in this study other than the time you are willing to give to participate in the interview.

How will my privacy be protected?

The interview will be administered in the privacy of the principal investigator's home via Zoom®. All records will be held confidentially and your identity will remain anonymous. Only the principal investigator will have access to the video-recordings. Only the principal investigator and transcription company Rev® will have access to the audio-recordings. Only the principal investigator, the transcription company Rev®, and the three members of her Dissertation Committee will have access to the transcripts made from the interviews without personal identification of participants. No real names will be used in the principal investigator's working documents, in her dissertation, or in any subsequent publication of the study. The names of any persons discussed during the interview will also be changed.

How will my data be kept confidential?

This study is designed so that no one, other than the principal investigator, can link the data to the participant. Your identity will be changed for the interview, the transcripts, the dissertation, and any subsequent publication of the study.

Demographic data will be collected at the end of each interview. However, the data collected will not identify you. Data sent via email to recruit participants and subsequent electronic communications between participants and principal investigator will have the electronic safeguards of the University of New England and School of Pharmacy A (School of Pharmacy B).

Once data is collected, the electronic transcripts will be kept in a password protected computer using Truecrypt®. Any print records will be kept in a locked cabinet/box in the home of the principal investigator. Only the principal investigator will have access to these records. Once the study is completed and records retained for three years per the Investigational Review Board at the University of New England, records with any identifiable data will be destroyed.

Your electronic signed consent form will be maintained by the principal investigator for at least three years after the project is complete before the electronic consent form is destroyed.

Since the interview will be through Zoom® audio-recordings and video-recordings will be made. Only the principal investigator and the transcription company Rev® will have access to these recordings. These recordings will be used to transcribe the interview. The interview transcriptions will then serve as data for analysis. Records of these recordings will be kept for three years and then erased and destroyed.

Since this study will include the use of SurveyMonkey® and will transfer data collected over the Internet, measures that will be used to keep all the transferred data secure include

making sure that the correct recipient is receiving the data. Furthermore, since the communications will be through the emails of the University of New England and School of Pharmacy A(School of Pharmacy B), electronic safeguards are already in place at these schools.

Data and results from this study may be used in future research projects. Findings from this study may be provided to participants at the request of participants. Participants can get these findings by contacting the principal investigator at kly@une.edu or 207-956-3598.

What are my rights as a research participant?

Your participation is voluntary. Your decision to participate will have no impact on your current or future relations with the University of New England or School of Pharmacy A (School of Pharmacy B). Your standing as a student will not be impacted by your decision to participate in this study.

You may skip or refuse to answer any question for any reason. If you choose not to participate, there is no penalty to you and you will not lose any benefits that you are otherwise entitled to receive. You are free to withdraw from this research study at any time, for any reason. If you choose to withdraw from the research there will be no penalty to you and you will not lose any benefits that you are otherwise entitled to receive.

Your participation may be terminated by the investigator without regard for the subjects consent in this circumstance: participant does not respond to principal investigator's emails despite repeated attempts to get in contact with student.

What other options do I have?

You may choose not to participate.

Whom may I contact with questions?

The researcher conducting this study is Kin S. Ly, PharmD, Principal Investigator. For questions or more information concerning this research you may contact her at kly@une.edu or 207-956-3598. Her lead advisor, Carey Clark, Ph.D. can be reached at cclark14@une.edu and her support advisor, Michelle Collay, Ph.D. can be reached at mcollay@une.edu or 207-602-2010.

If you have any questions or concerns about your rights as a research subject, you may contact Olgun Guvench, M.D. Ph.D., Chair of the UNE Institutional Review Board at oguvench@une.edu or (207) 221-4171.

Will I receive a copy of this consent form?

You will be given a copy of this consent form via email.

Participant's Statement

I understand the above description of this research and the risks and benefits associated with my participation as a research participant. I agree to take part in the research and do so voluntarily. Please click on the boxes below to indicate your Informed Consent.

□ By checking here, you signify your consent.

□ By checking here, you agree for the interview to be audio-recorded.

□ By checking here, you agree for the interview to be video-recorded.

Electronic Signature

Printed name _____

Date _____

Researcher's Statement

The participant named above had sufficient time to consider the information, had an opportunity to ask questions, and voluntarily agreed to be in this study.

_____

Date

_____

Researcher's signature

_____

Researcher's Printed Name

APPENDIX I: LIST OF MENTORING CHARACTERISTICS

EMAILED TO PARTICIPANTS PRIOR TO INTERVIEW

Subject: Examining Pharmacy Students' Perceptions of Clinical Faculty Mentoring Characteristics Influencing Students' Decision to Pursue a Pharmacy Residency.

Month, day, year

Dear Colleague,

Before meeting with the principal investigator, please think of a clinical faculty member or members that you consider to be a mentor(s). Here is a list of definitions and characteristics of mentoring relationships that I would like you to review and reflect prior to your interview. They are:

Clinical Faculty: Defined as an assistant professor, associate professor, or professor from the pharmacy practice department in a college or school of pharmacy.

Formal mentoring: "Formal mentorships are programs that are managed and sanctioned by the organization" (Chao, Waltz, and Gardner, 1992, p. 620).

Informal mentoring: "Informal mentorships are not managed, structured, nor formally recognized by the organization. Traditionally, they are spontaneous relationships that occur without external involvement from the organization" (Chao, Waltz, and Gardner, 1992, p. 620).

Mentee: For the purpose of this dissertation, mentee and protégé will be interchangeable. See protégé definition.

Mentor: "A person who is perceived to have greater relevant knowledge, wisdom, or experience" (Bozeman and Feeney, 2007, p. 731). For the purpose of this study, the mentor is defined as someone who provides professional development.

Mentoring: "Mentoring is an intense developmental relationship whereby advice, counseling, and developmental opportunities are provided to a protégé by a mentor, which, in turn, shapes the protégé's career experiences. . . . This occurs through two types of support to protégés: (1) instrumental or career support and (2) psychosocial support" (Eby, 1997, p. 126).

Protégé: According to Bozeman and Feeney (2007), a protégé is a person perceived to have less relevant knowledge, wisdom, or experience. For the purpose of this dissertation, protégé and mentee will be interchangeable.

Psychosocial Functions: "Those aspects of a relationship that enhance an individual's sense of competence, identity, and effectiveness in a professional role. These functions include role modeling, acceptance-and-confirmation, counseling, and friendship" (Kram, 1985, p. 32).

Role modeling: Defined as attitudes, values, and behaviors that mentor(s) demonstrate in aiding protégés to achieve competence, confidence, and a clear professional identity (Kram, 1985).

Acceptance-and-confirmation: Defined as ongoing respect and support portrayed by mentor(s) that strengthen protégés' self-confidence and self-image (Kram, 1985).

Counseling: Defined as the "psychosocial function that enables an individual to explore personal concerns" (Kram, 1985, p. 36) whereby mentor(s) act as a sounding board by demonstrating active listening and providing feedback (Kram, 1985).

Friendship: Defined as the mutual liking and understanding that extends beyond the daily work environment whereby experiences that occurred about work or outside work are shared with one another (Kram, 1985).

If you have any questions, please contact the principal investigator, Kin S. Ly, at kly@une.edu or 207-956-3598.

Thank you for your help!

Sincerely,

Kin S. Ly, PharmD
University of New England
Doctor of Education Candidate
(207) 956-3598; kly@une.edu

APPENDIX J: INTERVIEW PROTOCOL

Research Project: Examining Pharmacy Students' Perceptions of Clinical Faculty Mentoring Characteristics Influencing Students' Decision to Pursue a Pharmacy Residency.

Time of Interview:

Date:

School:

How: via Zoom®

Interviewer: Principal Investigator, Kin S. Ly

Interviewee:

[Describe here the study, telling the interviewee about (a) the purpose of the study, (b) the sources of data being collected, (c) what will be done with the data to protect confidentiality of the interviewee, (d) how long the interview will take, and (e) get participant's consent to interview and record the interview.]

a) Purpose of study: The purpose of this qualitative study will be to explore the characteristics of clinical faculty mentoring in relation to Professional Year 4 (PY4) students' decision to pursue pharmacy residency.

b) Data collection: Qualitative data will be collected through Zoom® interviews with participants.

c) Data and privacy protection: All records will be held confidentially and your identity will remain anonymous. Only the principal investigator will have access to the audio-recordings or video-recordings. Only the principal investigator and the three members of her Dissertation Committee will have access to the transcripts made from the interviews without personal identification of participants. No real names will be used in the principal investigator's working documents, in her dissertation, or in any subsequent publication of the study. The names of any persons discussed during the interview will also be changed.

d) Length of interview: 30 to 60 minutes.

[Turn on recording in Zoom®]

e) Get consent: "Do you consent to this interview? Is it alright with you if I audio-record this interview? Is it alright with you if I video-record this interview? Is it alright with you that a transcription company will listen to this conversation only for transcription purposes?"

[Give participants an opportunity to ask questions.]

Questions:

I am interviewing PY4 pharmacy students to learn more about their decision to seek a postgraduate pharmacy residency. Research suggests that faculty mentoring plays a role in their

decision. A mentor is “a person who is perceived to have greater relevant knowledge, wisdom, or experience (Bozeman and Feeney, 2007, p. 731). For the purpose of this study, the mentor is defined as someone who provides professional development. Is there a clinical faculty member or members that you consider to be a mentor(s)? Please describe:

1. How your mentoring relationship began with your clinical faculty mentor?

2. What personality characteristics does your clinical faculty mentor possess that support the mentoring process?

3. Positive experiences or interactions with your clinical faculty mentor that exemplify the mentoring process.

4. Did you have any negative experiences with your clinical faculty mentor? Can you describe them?

5. Have you experienced any personality changes within yourself as a result of mentoring from your clinical faculty mentor?

6. Of all the mentoring relationship experiences with your clinical faculty, which do you believe to be the most influential in your decision to pursue a pharmacy residency?

7. Please share any other information you feel is relevant to exploring mentoring and how it may be used to help influence a student's decision to pursue pharmacy residency.

Demographic Questions:

Please provide responses to the following questions:

1. Age ranges

20-25

26-30

31-35

36-40

41-45

46-50

2. Gender

Male

Female

3. Race/Ethnicity (select all that apply)

White

Black

Hispanic

Asian/Pacific Islander

American Indian/Alaska Native

Other

4. Degree Type that Participant Possess (select all that apply)

Bachelors

Masters

Doctorate

None

[Thank the individuals for their cooperation and participation in this interview. Assure them the confidentiality of the responses and state that principal investigator will follow-up with participants for member checking of the transcriptions of the data via email.]