

## RESEARCH ARTICLES

### The Role of Administrative Mentoring in the Pharmacy Deanship

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**Objectives.** The role of administrative-related mentoring in the career advancement of pharmacy deans was described. This study also provided a longitudinal perspective on the pharmacy deanship.

**Methods.** Using a self-administered questionnaire and 2 follow-up mailings in mid-2002, 75 out of 82 current deans in member institutions responded (one institution in the dean search process was excluded), yielding a 91.5% response rate.

**Results.** Overall, 90.2% of current pharmacy deans reported receiving administrative mentoring, while 78% of current deans reported currently serving as an administrative mentor. The administrative mentoring received and provided had a moderate importance in career advancement.

**Conclusions.** More research is necessary to determine what other factors contribute to the career advancement of pharmacy deans. Programming offered by the American Association of Colleges of Pharmacy provides a potential platform for the recruitment and preparation of aspiring deans.

**Keywords:** mentoring, dean, administration

#### INTRODUCTION

The first inquiry and a longitudinal follow-up study to elucidate pharmacy dean career paths were conducted both in 1992 and 1997.<sup>1,2</sup> These studies sought to assess the educational, personal, and professional backgrounds of current pharmacy deans as well as identify trends and changes in the pharmacy deanship. Determining the normative career path for pharmacy deans has implications both for administrative career planning and providing information about leadership development opportunities to the next generation of leaders.

The manpower shortages in pharmacy extend beyond practicing pharmacy and into academic pharmacy.<sup>3</sup> The graying of the faculty, as well as faculty leaving academia for higher-paying positions in industry and high turnover, has led to what Dr. Richard Penna termed a workforce crisis in academic pharmacy.<sup>3,4</sup> The shortages in academic pharmacy have had an impact on the deanship in that the pool of potential leaders has diminished, resulting in a call for more development and mentoring programs, a need which was also identified as necessary in the 2 previous dean career path studies.<sup>1,2,5,6</sup>

The shortages in academic pharmacy as a result of the increased number of schools and colleges of pharmacy opening, in combination with the graying of the faculty,

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has ramifications for the academic pharmacy deanship. Elucidation of the normative career path of pharmacy deans and the role of administrative mentoring in career advancement can guide aspiring deans as well as provide them with information on structuring programs for leadership development. The purpose of this study was to describe the normative career paths and preparation strategies of pharmacy deans as well as the role of administrative mentoring in the career advancement of pharmacy deans. This study also provided a longitudinal perspective on the pharmacy deanship. The normative career paths and preparation strategies of pharmacy deans will be considered in a separate paper.<sup>7</sup>

#### BACKGROUND

##### Mentoring

Mentoring has been defined as a long-term, professionally centered relationship between 2 individuals in which the more experienced individual, the mentor, advises and assists the career of the less-experienced protégé in various ways.<sup>8</sup> Mentoring has been strongly associated with career advancement.<sup>9-15</sup> Mentoring can be either formal or informal and is generally accepted in the literature as being primarily comprised of 2 dimensions: psychosocial and career-related.<sup>16,17</sup> The psychosocial dimension is related more to the social support that the mentor provides for the protégé and consists of 4 mentoring functions. The career-related dimension consists of the career coaching opportunities that the mentor affords

Table 1. Psychosocial and Career-related Mentoring Functions and Example

Mentoring Function by Subconstruct	Example Activities
<b>Career-related:</b> part of mentoring relationship that prepares protégé for career-advancement	
sponsorship	<ul style="list-style-type: none"> <li>• nominating protégé for promotions</li> <li>• public support to launch career</li> </ul>
exposure and visibility	<ul style="list-style-type: none"> <li>• exposure to future opportunities</li> <li>• provide assignments that increase visibility of protégé to decision makers</li> </ul>
coaching	<ul style="list-style-type: none"> <li>• provide knowledge about informal and formal networks</li> <li>• providing feedback</li> <li>• strategies for accomplishing objectives</li> </ul>
protection	<ul style="list-style-type: none"> <li>• reduce unnecessary risk to protégé</li> <li>• shield the protégé</li> </ul>
challenging assignments	<ul style="list-style-type: none"> <li>• provide challenging assignments that are importance learning opportunities</li> </ul>
<b>Psychosocial:</b> part of mentoring relationship that enhances the protégé's sense of competence, identity, and work-effectiveness	
role-modeling	<ul style="list-style-type: none"> <li>• model appropriate attitudes, values, and behaviors</li> </ul>
acceptance and confirmation	<ul style="list-style-type: none"> <li>• unconditional support and acceptance</li> </ul>
counseling	<ul style="list-style-type: none"> <li>• provide forum for the protégé to discuss fears and concerns</li> </ul>
friendship	<ul style="list-style-type: none"> <li>• interact with protégé on an informal basis</li> </ul>

adapted from Kram and Noe<sup>11,17</sup>

the protégé and consists of 5 mentoring functions. Kram cautioned that more important than labeling a particular relationship as a mentoring relationship was determining which career-related and psychosocial mentoring functions were at work.<sup>17</sup> The corresponding mentoring functions along with example activities are shown in Table 1.

A mentor can fulfill functions in one or both of the psychosocial or the career-related dimensions. The mentoring functions provided often vary depending on the characteristics and nature of the relationship. The 2 primary ways a mentor may contribute to the career advancement of the protégé is by providing entry into social and informational networks as well as role-modeling, corresponding with the career-related and psychosocial mentoring.<sup>13,16</sup>

The first mentoring instrument created based on Kram's mentoring framework was a 29-item scale developed by Noe to assess the extent to which protégés believed that their mentors provided psychosocial and career-related mentoring in assigned mentoring relationships.<sup>11</sup> The influence of the gender composition of the mentoring dyad was also explored. Females reported receiving more psychosocial benefits than males in the study. This study found a statistically significant difference between the reported extent of psychosocial benefits and career-related benefits from participating in an assigned mentoring relationship.<sup>11</sup> This study only examined assigned or formal mentoring relationships where it would not be expected that the mentoring relationship

would fulfill all possible mentoring functions, as might be the expectation in a more informally established or self-selected mentoring relationship.<sup>11</sup> A study by Tepper and colleagues examined the validity of a 16-item instrument adapted from the instrument used by Noe.<sup>11,18</sup> The instrument was administered to 5 samples of protégés from different fields and industries. This study further supported the 2-factor mentoring model put forth by Kram of psychosocial and career-related mentoring functions.<sup>16</sup> Tepper and colleagues also found that the mentoring function items had similar meanings for men and women; thus, this instrument was appropriate for use and comparison of responses from both sexes.<sup>18</sup>

Mentoring functions have been analyzed regarding the genders of the mentor and the protégé to determine whether differences exist between men and women in the amount and form of mentorship and the resulting outcomes. The literature is inconclusive on the role of gender in terms of the psychosocial and career-related mentoring functions. Since mentoring appears to be especially important for the career advancement of women, determining the effects of the gender of the mentor and protégé becomes more important in professions and disciplines where mentors tend to be predominantly male.<sup>19-24</sup>

### Alternative Mentoring Model

While the mentoring model developed by Kram is the most widely accepted, Mertz developed a conceptual

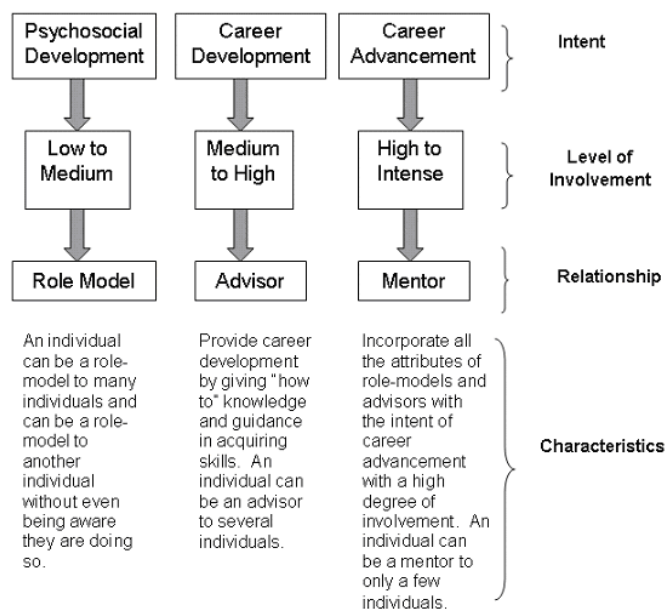


Figure 1. Mertz conceptual framework for defining mentoring. Adapted from Mertz.<sup>25</sup>

framework for academia that sought to provide a more precise definition of mentoring.<sup>16,25</sup> The conceptual framework developed by Mertz further divides Kram's classification of career-related mentoring functions into career advancement and career development.<sup>16,25</sup> Mertz defines career development as activities aimed at helping individuals grow and develop professionally. Mentoring functions related to career development include coaching and challenging assignments. Mertz defines career advancement as helping individuals advance professionally and encompasses the mentoring functions of sponsorship, exposure and visibility, and protection. Relationships can have role models, advisors, and mentors matched with a less-experienced individual. What distinguishes each relationship is the intent and the level of involvement. Mertz's conceptual model is shown in Figure 1. This model is similar to what is seen in corporations, where the benefits of mentoring have long been recognized.<sup>26</sup> The use of sponsors, role-models, and mentors in corporations appears to support the intent and involvement components of Mertz's conceptual model.<sup>25</sup>

### Mentoring Myths

In their examination of faculty mentoring, Luna and Cullen discussed some myths concerning mentoring.<sup>26</sup> Examples of mentoring myths include the misconceptions that mentoring is rewarding in and of itself and that any mentor and protégé can be paired. Mentoring relationships are not always positive for both individuals and

can actually be harmful.<sup>17,27</sup> The pairing of mentor and protégé also discounts the requirement that both the mentor and protégé require initiative and effort. Another myth is that mentoring is a cure-all for an organization's problems rather than a tool for improvement.<sup>26</sup>

### The Importance of Mentorship in Pursuing Deanships

In the previous 2 pharmacy dean career-path studies, respondents rated mentors as having high importance in achieving their first administrative position. When asked to rate the importance of his or her mentor or mentors in assisting them in obtaining their first administrative position on a 5-point scale anchored at 1 = "not at all" to 5 = "very high," the newly named deans rated mentors as having high importance (mean = 4.06, SD = 1.24).<sup>2</sup> While deans named prior to 1991 were not asked to rate the importance of a mentor or mentors in obtaining their first administrative position, one-third reported that a mentor had assisted them in obtaining their current position.<sup>1</sup>

In her dissertation, Duncan examined the effect of mentoring on the career advancement of male and female administrators at the dean's level in higher education.<sup>28</sup> Fifty-eight percent of respondents were mentored in the first 5 years of their careers and reported that this mentoring had been important to their career advancement.<sup>28</sup> Duncan concluded that there was a relationship between past and present mentoring experiences, personal attitudes towards mentoring, and career advancement of deans at the higher education institutions in the Southern University Group.<sup>28</sup>

### METHODS

This study employed a descriptive cross-sectional study design using survey research methodology. Deans at every accredited school or college of pharmacy in the United States were included to strive for a census. Subjects were identified using the American Association of Colleges of Pharmacy 2001–2002 Roster of Faculty and Professional Staff.<sup>29</sup> Interim and acting deans were to be analyzed separately since their tenure in the deanship was uncertain; however, no deans were in this category. The Human Subjects Protection Program declared this project exempt.

The first mailing was sent via first-class mail on June 10, 2002, and included a cover letter explaining the purpose of the study, a personalized instrument, and a self-addressed postage-paid return envelope. Follow-up mailings were sent to all non-respondents on July 15, 2002 and September 3, 2002. Non-monetary incentives were included in each mailing to hopefully increase the response rate.

### **Questionnaire Development**

Information was collected on demographics, time in the deanship, career pathway, and mentoring functions. The instrument was primarily based on the one used in the previous 2 pharmacy dean studies with the addition of a revised version of the 16-item mentoring function instrument used by Tepper and colleagues to assess career-related and psychosocial mentoring functions.<sup>1,2,11,18</sup> Respondents were asked to indicate the extent to which his or her mentor provided the various mentoring functions on a 5-point scaled response anchored at 1 = "not at all" and 5 = "to a very large extent." For mentoring functions represented by more than one item, the mean was taken and then used in the analysis in order to provide a single score for each mentoring function. Since the mentor scale had been used extensively in the literature and the majority of the instrument had been previously validated in this population, an experienced panel of faculty members served as experts to ensure face validity.

An abbreviated, 2-page instrument that consisted primarily of the mentoring items was sent to sitting deans who had participated in the 1996 study, while individuals who either assumed their first deanship since 1996 or were non-responders in the 1991 and/or 1996 studies received a full 4-page instrument, which also collected career path information. Coverage and sampling error were controlled for by striving for a census of the entire population (or nearly so) of pharmacy deans at accredited schools and colleges of pharmacy. Measurement error was addressed by using a previously validated instrument. Multiple mailings were used to decrease potential nonresponse error.

### **Data Analysis**

Data were entered into SPSS 11.0 for analysis. Descriptive statistics such as means, standard deviations, and percentages were calculated for demographic data. An exploratory multiple regression was used to determine whether there was a relationship between the importance of having had a mentor assist in obtaining one's first administrative position and each of the mentoring functions. The reliability of personal factual items has been found to be high.<sup>30</sup> Since the majority of the longitudinal survey items gathered personal factual information, no formal reliability testing was conducted. A Cronbach's alpha was conducted on both mentoring scales to provide estimates of internal consistency reliability. The a priori level of significance was set at alpha equal to 0.05.

## **RESULTS**

At the time of data collection in mid-2002, there were 83 schools and colleges of pharmacy. One institution in

the midst of the dean search process was excluded from data collection. Using a self-administered questionnaire and 2 follow-up mailings, 75 out of 82 member institutions responded, yielding a 91.5% response rate. Twenty-nine out of the 35 deans who had been named since the previous data collection responded and were designated as "newly named deans." Of the 46 deans who had held a deanship prior to 1996 and were designated as "established deans," 44 had participated in the 1996 study and two previous non-responders were participating for the first time.

### **Demographics**

The "typical pharmacy dean" in this study was a Caucasian male, 57.4 years old ( $\pm 5.5$  years; range 44 - 72 years), who held a pharmacy degree. The average time spent in the professoriate prior to assuming their first deanship was 19.5 years ( $\pm 5.6$ ; range 9-34 years.) The average tenure spent in their current deanship was 7.5 years ( $\pm 5.5$  years, range 0-25 years.)

### **Administrative Mentoring Received by Current Pharmacy Deans**

Deans were asked to indicate the degree to which a more experienced individual or individuals interacted with them prior to their first deanship. Seventy-four (90.2%) of pharmacy deans reported receiving administrative mentoring. The 2002 cohort of current pharmacy deans received career mentoring (mean = 3.23, SD = 0.87) to a greater extent than psychosocial mentoring (mean = 3.05, SD = 0.70) ( $P = 0.019$ ). Deans indicated that the career-related mentoring function of sponsorship was provided to a large extent by their mentor or mentors. The results are summarized in Table 2.

The results of the comparison between newly named deans and established deans broken down by mentoring function are presented in Table 2. Established deans reported receiving the career-related mentoring function of challenging assignments to a greater extent than newly named deans ( $p = 0.023$ ). There were no other statistically significant differences in the extent of the various mentoring functions provided to newly named vs established pharmacy deans. Both newly named and established deans rated protection as the least-provided mentoring function.

As a group, male pharmacy deans reported receiving career-related mentoring to a greater extent than psychosocial mentoring ( $p = 0.033$ ). For female pharmacy deans there was no difference in the extent of career-related mentoring and psychosocial mentoring received. There were no reported differences in the mentoring

Table 2. Extent of Administrative Mentoring Received by Current Pharmacy Deans\*†

Mentoring Functions	Years in the Deanship		
	All Deans <sup>‡</sup> (n = 74)	Newly Named Deans <sup>†</sup> (n = 29)	Established Deans <sup>†</sup> (n = 45)
Career-related			
Sponsorship	4.01 (1.16)	3.72 (1.33)	4.20 (1.01)
Coaching	3.15 (1.29)	3.04 (1.40)	3.22 (1.22)
Exposure and Visibility	3.64 (1.06)	3.39 (1.19)	3.79 (0.95)
Protection	2.03 (0.82)	1.81 (0.77)	2.17 (0.83)
Challenging assignments <sup>§</sup>	3.77 (1.20)	3.34 (1.40)	4.04 (0.98)
Psychosocial			
Acceptance and Confirmation	3.41 (0.77)	3.31 (0.86)	3.47 (0.70)
Counseling	2.71 (0.85)	2.68 (0.88)	2.74 (0.85)
Role-modeling	3.60 (0.91)	3.59 (1.01)	3.61 (0.85)
Friendship	2.73 (1.16)	2.41 (1.21)	2.93 (1.10)

\* five-point rating scale: 1 = “not at all,” 2 = “to a slight extent,” 3 = “to some extent,” 4 = “to a large extent,” 5 = “to a very large extent”

† values are given as Mean (SD)

‡ n = 73, one non-respondent to item on coaching

§ significant at  $p < 0.05$

functions provided to male and female pharmacy deans. Several deans provided additional written comments regarding past mentoring they had received, which will be considered in the discussion section.

Deans were also asked how important his or her mentor was in assisting them in obtaining their first dean position on a scale anchored at 1 = “Not at all” and 5 = “Very high.” Overall current pharmacy deans rated past mentors as having had moderate importance in assisting them in obtaining their first deanship (mean = 3.13, SD = 1.34,  $n = 68$ ). There was no statistically significant difference between newly named deans and established deans. While not examined in the 1991 cohort or the “established dean group” in the 1996 cohort, the group labeled as “newly named deans” in the 1996 cohort reported that mentors had a high importance in assisting them in obtaining their first deanship (mean = 4.06, SD = 1.24), a finding which was no different from the 2002 cohort of newly named deans. In rating how important his or her mentor was in assisting them to obtain their first dean position, there was no difference between male deans and female deans. Both male and female deans indicated that their mentor or mentors had had a moderate importance in assisting them to obtain their first deanship.

#### Administrative Mentoring Provided by Current Pharmacy Deans

Sixty-four (78%) of pharmacy deans indicated that they were currently serving as mentors. Twenty-one newly named deans (72.4%) and 43 established deans (87.8%)

reported currently serving as mentors. As a group, current pharmacy deans reported no difference in the extent of career-related mentoring and psychosocial mentoring provided. The results are summarized in Table 3.

The results of the comparison between newly named deans and established deans are presented in Table 3. Established deans reported providing the career-related mentoring function of coaching to a greater extent than newly named deans ( $p = 0.041$ ). Established deans also reported providing the career-related mentoring function of challenging assignments to a greater extent than newly named deans ( $p = 0.039$ ). There were no other differences in the extent of the various mentoring functions provided by newly named vs established deans. Newly named deans rated friendship and protection as the least-provided mentoring functions, providing them only to a slight extent. Established deans rated friendship as the least provided mentoring function.

There was no difference in the overall extent of psychosocial mentoring provided by male deans vs female deans. There was also no difference between male deans and female deans in the extent of career-related mentoring provided. Male deans (mean = 3.15, SD = 0.76) reported providing the career-related mentoring function of protection to a greater extent than female deans (mean = 2.50, SD = 1.13) ( $p = 0.026$ .)

Deans were also asked how important he or she had been in assisting protégé(s) to obtain their first dean position on a scale anchored at 1 = “Not at all” and 5 = “Very high.” Overall, current pharmacy deans reported having had moderate importance in assisting protégé(s)

Table 3. Extent of Current Mentoring Functions Undertaken by Current Deans\*†

Mentoring Functions	Years in the Deanship		
	All Deans (n = 64)	Newly Named Deans (n = 21)	Established Deans (n = 43)
Career-related			
Sponsorship	4.22 (0.88)	3.95 (1.20)	4.35 (0.65)
Coaching	4.02 (0.92)	3.62 (1.16)	4.21 (0.71)
Exposure and Visibility	4.02 (0.82)	3.75 (1.08)	4.15 (0.64)
Protection	3.05 (0.85)	2.81 (0.97)	3.16 (0.78)
Challenging assignments‡	4.08 (0.86)	3.76 (1.09)	4.23 (0.68)
Psychosocial			
Acceptance and Confirmation	4.04 (0.51)	3.98 (0.60)	4.07 (0.47)
Counseling	3.65 (0.63)	3.64 (0.80)	3.65 (0.54)
Role-modeling	3.88 (0.67)	3.81 (0.86)	3.91 (0.56)
Friendship	2.81 (0.99)	2.71 (1.23)	2.86 (0.86)

\*five-point rating scale: 1 = "not at all," 2 = "to a slight extent," 3 = "to some extent," 4 = "to a large extent," 5 = "to a very large extent"

†values are given as Mean (SD)

‡significant at  $P < 0.05$

obtain their first deanship (mean = 3.60, SD = 1.13,  $n = 58$ ). This is no different from the 1996 cohort, who rated their influence on protégés securing their first administrative positions as high (mean = 4.01, SD = 1.01). There was no difference between newly named deans and established deans in this regard. In written comments, 2 deans indicated that their level of importance depended on the individual, that it was not the same for each protégé, thus making this item difficult to answer. One dean reported that they were too successful because the protégé moved away. Another dean indicated that only the protégé could answer how important the mentoring they received was to their career advancement. Several newly named deans reported that it was too early to gauge the effect of their mentoring activities. Another dean reported that the items related to current mentoring practices, as a new dean, had not yet come into play. Additional general comments regarding current mentoring activities will be considered in the discussion section.

There was no difference between male deans and female deans in rating how important they were to his or her protégé or protégés in assisting them in obtaining their first administrative position. Both male and female deans indicated that they had had a moderate importance in their protégé or protégés obtaining their first administrative position.

### Gender Composition of Mentoring Dyad

Information was collected on the gender of the protégé or protégés that both newly named and established deans reported having had the most influence on in assisting with his or her administrative career advancement. Each men-

toring dyad was classified according to gender composition into 1 of 3 possible categories, where the dean was the mentor. The first category was that the protégé(s) were exclusively the same gender as the mentor. The second category was that the protégé(s) were exclusively the opposite gender of the mentor. The third category was that the mentor had mentored both male and female protégés. There was no difference in the mean value of each of the 9 mentoring functions based on the gender composition of the mentoring dyad for career-related and psychosocial mentoring provided by new deans.

Thirty-five deans (57.4%) fell into the third category and had both male and female protégés. Twenty-one deans (34.4%) fit into the first category and had protégé(s) that were exclusively the same gender as the dean providing the mentoring. Only 5 deans (8.2%) were in the second category and had protégé(s) that were exclusively of the opposite gender. Looking at the gender composition of the mentoring dyad by years in the deanship, 52.6% ( $n = 10$ ) of newly named deans vs 26.2% of established deans ( $n = 11$ ) were classified into the first category and had protégé(s) that were exclusively the same gender. The majority of established deans (64.3%,  $n = 27$ ) fell into the third category and had mentored both male and female protégés vs 42.1% ( $n = 8$ ) of newly named deans.

Mentoring dyads in which the newly named dean had been the protégé were also considered. Of the 21 male newly named deans, 18 (85.7%) had male mentor(s) and 3 (14.3%) had both male and female mentors. None of the male newly named deans had exclusively female mentor(s). Of the 8 female newly named deans, 5 (71.4%) had exclusively male mentor(s) and 3 (28.6%)

Table 4. Correlations Between Past Mentoring Functions Received and Importance of Mentoring in Career Advancement for Current Deans

Mentoring Functions	Importance of Mentor in Obtaining First Deanship (N = 67)*	Years in the Deanship	
		Newly Named Deans (n = 27)	Established Deans (n = 40)
Career-related			
Sponsorship	0.311 †	0.553 †	0.223
Coaching	0.381 †	0.397 †	0.367 †
Exposure and visibility	0.400 †	0.563 †	0.326†
Protection	0.486 †	0.571†	0.536†
Challenging assignments	0.449 †	0.659 †	0.364 †
Psychosocial			
Acceptance and confirmation	0.519 †	0.642 †	0.460 †
Counseling	0.484 †	0.574†	0.499 †
Role-modeling	0.634 †	0.773†	0.561 †
Friendship	0.238†	0.405 †	0.167

\*8 non-responders to item indicating importance of mentor in obtaining first deanship

†correlation was significant as the 0.05 level of significance

had both male and female mentors. None of the female newly named deans had exclusively female mentor(s).

### Mentoring and Career Advancement

Multiple regression analysis was to be conducted for both past mentoring received and current mentoring provided using career advancement as the dependent variable. Due to nonresponse or the item not applying, not every dean responded to the item related to the importance of mentoring in career advancement. The number of valid cases for both mentoring received and provided was insufficient to complete the multiple regression analysis given the number of independent variables.

For past mentoring received, all the mentoring functions had a positive, significant correlation with career advancement. Role-modeling was the most strongly correlated with career advancement, followed by acceptance and confirmation. As shown in Table 4, for newly named deans, all 9 mentoring functions had a positive, significant correlation with career advancement. For newly named deans, the psychosocial mentoring function of role-modeling was the most strongly correlated with career advancement ( $r = 0.773$ ,  $p < 0.0001$ ). For established deans, 7 of the 9 mentoring functions had positive, significant correlations. The mentoring function of role-modeling was the mentoring function most highly correlated with career advancement for established deans ( $r = 0.561$ ,  $p < 0.0001$ ). There were no differences between newly named and established deans in the relationship between career advancement and past mentoring functions received. Only the mentoring functions of role-modeling, exposure and visibility, and coaching had

positive, significant correlations with career advancement for female deans. Exposure and visibility had the strongest positive correlation ( $r = 0.853$ ,  $p = 0.007$ ) with career advancement for female deans. For male deans, all the mentoring functions, except for friendship, had positive, significant correlations with career advancement. Role-modeling had the strongest positive correlation with career-advancement for male deans ( $r = 0.607$ ,  $p < 0.0001$ ). The relationship between career advancement and the mentoring function of exposure and visibility was different between female deans ( $r = 0.853$ ) and male deans ( $r = 0.341$ ) ( $p = 0.05$ ).

For current mentoring provided, each of the 9 mentoring functions was correlated with their rating of their influence in assisting protégé(s) to obtain their first dean position. The results are presented in Table 5. For current mentoring provided, the only mentoring functions that had a positive, significant correlation with career advancement were sponsorship ( $r = 0.488$ ,  $p < 0.001$ ) and exposure and visibility ( $r = 0.307$ ,  $p = 0.019$ ). As shown in Table 5, the only positive, significant correlation with career advancement of protégés for newly named deans was the mentoring function of role-modeling ( $r = 0.463$ ,  $p = 0.05$ ). For established deans, the only mentoring function that was positive and significant was sponsorship ( $r = 0.510$ ,  $p = 0.001$ ). There were no differences between newly named and established deans in the relationship between career advancement and current mentoring functions provided. None of the mentoring functions had positive, significant correlations with career advancement of protégés for female deans. For male deans, only the mentoring function of sponsorship was significant ( $r = 0.485$ ,

Table 5. Correlations Between Current Mentoring Functions Provided and Importance of Mentoring in Career Advancement for Protégés

Mentoring Functions	Years in the Deanship		
	All deans (N = 58)*	Newly Named Deans (n = 18)	Established Deans (n = 40)
Career-related			
Sponsorship	0.488 †	0.393	0.510†
Coaching	0.182	0.211	0.032
Exposure & Visibility	0.307 †	0.443	0.210
Protection	-0.083	0.021	- 0.177
Challenging assignments	0.165	0.316	- 0.016
Psychosocial			
Acceptance & Confirmation	0.122	0.346	0.091
Counseling	0.006	0.220	- 0.064
Role-modeling	0.252	0.463†	0.065
Friendship	0.207	0.084	0.270

\*14 deans reported not currently serving as a mentor, with regard to his or her importance in assisting a protégé to obtain his or her first administrative position, 2 deans reported that his or her level of importance depended on the individual and 1 dean reported that only the protégé(s) could answer that item.

†correlation was significant as the 0.05 level of significance

$p = 0.001$ ). There were no differences between male and female deans in the relationship between career advancement and current mentoring provided.

### Reliability Analysis

The majority of the survey instrument contained personal factual items, the reliability of which has been found to be high.<sup>30</sup> A Cronbach's alpha was conducted on the mentoring scale assessing past mentoring received and current mentoring provided. All 17 items related to the 8 mentoring functions were included in the calculation of the Cronbach's alpha. The reliability of the data from the past mentoring received scale produced an alpha of 0.92. The reliability of the data from the current mentoring provided scale produced an alpha of 0.86.

### DISCUSSION

The mentoring functions of protection (career-related) and friendship (psychosocial) were rated consistently lower than other mentoring functions in both mentoring provided and received. Conversely, sponsorship and exposure and visibility, which are both career-related mentoring functions, were rated consistently higher than other mentoring functions in both mentoring provided and received. Since the same mentoring functions appeared to be provided that were received, there may be a learned effect. Noe discussed Albert Bandura's work in social learning theory, and while Noe does not label it as such, the construct of self-efficacy is the measurement of an individual's confidence in his or her ability to perform a specific task to suc-

cessful completion.<sup>11,31</sup> The specific aspect of self-efficacy that could be related to the mentoring construct would be that of direct and observational learning, which Bandura labeled as performance attainment and vicarious experiences, respectively.<sup>31</sup> Having experienced sponsorship and exposure and visibility, either directly or vicariously, to the largest extent, deans may have greater self-efficacy in those areas of mentoring and thus those are the mentoring functions they in turn will provide to the greatest extent. Likewise, in those mentoring functions that they received to a lesser extent, deans may have lower self-efficacy in their provision. Mentoring has been viewed as a method to increase self-efficacy and facilitate the personal development and advancement of the protégé.

Overall, career-related mentoring appeared to be provided and received to a greater extent than psychosocial mentoring by current pharmacy deans. While a distinction was not made as to whether mentoring relationships were formally or informally established, the predominantly career-related mentoring seen in this population suggests that potentially many of the mentoring relationships were formally assigned. Formally assigned mentoring relationships do not tend to provide all the mentoring functions, while informally or self-selected mentoring relationships are more likely to do so, potentially accounting for the primarily career-related mentoring seen in this cohort of deans.<sup>11</sup> Protégés tend to perceive more psychosocial mentoring in informally established mentoring relationships, while career-related mentoring tends not to be affected by the formality.<sup>12</sup>



### **Past Mentoring Functions Received by Pharmacy Deans**

There was no difference between male and female deans in their rating of the importance of a mentor or mentors in assisting them in obtaining their first deanship. This appears to be contrary to the literature that suggested that mentoring is especially important for the career advancement of women.<sup>19-22</sup> Due to the small number of women in the population of pharmacy deans, it is not possible to generalize beyond this group.

While not statistically different, the group identified as newly named deans in the 1996 cohort rated the importance of a mentor or mentors in assisting in obtaining the first deanship as high, the newly named deans in the 2002 cohort only rated their mentor or mentors as having moderate importance. The relative importance of mentors in assisting deans in obtaining their first deanship has remained fairly constant. Although recall bias would be expected more with established deans, this could be a possible explanation. This also suggests the existence of other factors that were important, other than or in addition to mentoring, in assisting newly named deans in obtaining their first deanship.

The low rating of the friendship items also supports the existence of more formally rather than informally established mentoring relationships. Since informally established mentoring relationships are based more on self-selection, they would be more likely to involve interaction on a social level. The low rating of the mentoring function of protection may have been due to the protégé, in this case the dean, being unaware of interventions on their behalf by their mentor or mentors. The items related to protection do not account for potential actions by a mentor to the protégé that were done without the protégé's knowledge. There could have also been potential social desirability bias in responses to the item on protection, in terms of not wanting to admit that protection was needed; however, given the low rating for this mentoring function for current mentoring provided, this was probably not an issue.

The comment made by one dean that deans who came up through the academic ranks in the 1960s and 1970s did not really have mentors is better described by Mertz's conceptual model of role models and advisors than by Kram's model.<sup>16,25</sup> Role models and advisors can be distant, as this dean described the deans of that era, but still provide the needed information for career development. Reliance on the Academy, as described by this dean, suggests that other activities and experiences provided avenues for career advancement. There appears to be a continued reliance on the Academy, given the high

rating of attendance and importance of AACP programming with pharmacy deans. The Academy, specifically the AACP, could continue to serve as a potentially valuable resource in recruiting and retaining deans.

### **Current Mentoring Provided by Pharmacy Deans**

Established deans reported providing 4 of the 5 career-related mentoring functions to a large extent, while newly named deans did not report providing any of the career-related mentoring functions more than to some extent. The difference seen between the established deans and the newly named deans with regard to the extent to which they provide career-related mentoring functions suggests that there may be a relationship with length of tenure in the deanship, as well as the opportunity and ability to provide those types of mentoring activities. This was further supported by the newly named deans who indicated that it was too early in their deanships or that the types of mentoring functions listed had not yet come into play, suggesting that opportunity and tenure may be a necessary element in the provision of career-related mentoring functions.

There was no difference between male and female deans in the extent of career-related or psychosocial mentoring functions provided to protégés. As seen with the study by Ragins and McFarlin, these findings do not appear to support the assumption that male mentors provide more career-related mentoring while female deans provide more psychosocial mentoring.<sup>32</sup> Due to the small number of female deans, these results cannot be generalized outside of this group.

One dean's written comments highlighted the difficulty in defining and articulating mentoring.<sup>25</sup> While indicating that many individuals considered them a mentor, they felt more like a readily accessible role model, and that they did assign promising individuals to more challenging assignments. While the written comments revealed several mentoring functions they were providing perhaps without realizing it, such as role-modeling, challenging assignments, and sponsorship, Kram's model of mentoring may not capture this individual's experience.<sup>16</sup> In the conceptual model put forth by Mertz, these activities in fact would not be mentoring with the purpose of career advancement, but rather more career development as either a role-model or advisor.

One dean commented that individuals should take more personal responsibility for seeking out opportunities. However, the literature suggests that not everyone should be a protégé; in essence, there are requirements for an individual to be a protégé.<sup>26</sup> These requirements for the "ideal protégé" include being goal oriented and

taking personal responsibility for his or her growth.<sup>26</sup> Following Mertz's conceptual model, mentoring with the intent of career advancement, requires a high level of involvement from both the mentor and protégé.<sup>26</sup> This suggests a high level of effort and initiative on the part of the mentor as well as the protégé. The lack of personal responsibility on the part of individuals to seek out opportunities suggests that targeted mentoring programs should be made available but not required for effective mentoring to occur. This is not to suggest that formal mentoring relationships are less valuable than informally established mentoring relationships, but for effective mentoring, both parties must have the same intent and level of involvement.<sup>25</sup>

The literature also suggests that not everyone should be a protégé, not everyone should be a mentor.<sup>26</sup> While not explored in this study, negative mentoring relationships can exist.<sup>17,27</sup> Many times the lack of a suitable mentor creates the need for an alternative mentoring relationship.<sup>17</sup> The primary alternative mentoring relationship is a peer relationship.<sup>17</sup> Peer mentoring relationships offer several advantages such as being more available at every career stage and generally lasting longer than more traditional mentoring relationships. The career-related mentoring functions available in a peer-mentoring relationship include information sharing, career strategizing, and job-related feedback.<sup>17</sup> The psychosocial mentoring functions in a peer relationship tend to center around confirmation, emotional support, personal feedback, and friendship.<sup>17</sup>

### **Mentoring Functions in Mixed Mentorship Relationships**

There were no differences in the mentoring functions provided by newly named and established deans based on the gender composition of the mentoring dyad. These findings agree with those of Ragins and McFarlin; that the gender of the mentor did not influence the protégé's perceptions of career-related and psychosocial mentoring functions in male-dominated professions where female protégés would be more likely to have a male mentor.<sup>32</sup> These results do not support the literature that suggests that the effect of the gender of the mentor and protégé becomes important in professions where mentors are predominantly male.<sup>23,24</sup> While nearly all of the female deans in the population participated in this study, their relative small number precludes generalizing outside of this group.

Established deans reported a higher percentage of mixed gender mentoring dyads than newly named deans. Established deans in the 1996 cohort also reported a

higher percentage of mixed gender mentoring dyads than newly named deans in that study. This could indicate that engaging in mixed gender mentoring dyads could be affected by length of time in the deanship. The literature suggests that male mentors often shy away from female protégés for a variety of reasons, including personal risk to career and fear of perception of an inappropriate relationship.<sup>11,14,16,26,32</sup> These findings also support the literature that suggests since mentors can provide socialization, access to networks, and career-development, mixed mentoring relationships are more likely to occur in male-dominated professions.<sup>14</sup> Established deans, due to their length of tenure, may be more able to provide socialization and access to networks than newly named deans.

### **Mentoring and Career Advancement**

While the mentoring function of protection was consistently rated as having a low importance in the extent to which it was received by pharmacy deans, it was significantly correlated with career advancement. The positive significant correlation with career advancement was not expected due to its low ratings, and while this could be a spurious correlation, there are several possible explanations. The same positive significant correlation was not seen between protection and the career advancement of protégés when examining mentoring provided by pharmacy deans. These findings suggest that perhaps the item on career advancement could have been tapping into another construct and that potentially a more precise measure would have been to ask specifically how each mentoring function impacted career advancement. While it was not possible to do so, asking the protégés to rate the importance of the mentoring provided in their career advancement to see if the same pattern was seen could serve as a method of cross validation. This would have provided a measure of cross validation since the correlation with career advancement was not seen with current mentoring provided as reported by the pharmacy deans.

Another possible explanation for the career-related mentoring function of protection correlating with career advancement is found in Mertz's conceptual model of mentoring which further classified Kram's career-related mentoring functions into either career development or career advancement.<sup>16,25</sup> Career development is concerned with those activities aimed at helping individuals grow and develop professionally, such as coaching and challenging assignments. Career advancement is concerned with helping individuals advance professionally by providing such functions as sponsorship, exposure and visibility, and protection. Protection viewed in this context would be correlated with career advancement.

### **Limitations**

A regression analysis was not possible due to the number of independent variables relative to the number of cases. The cases in this study represented nearly the entire population, therefore making it impossible to increase the sample size in order to run the regression analysis.

Several deans reported difficulty in responding to the item related to their importance in assisting a protégé or protégés in obtaining their first administrative position. Since their level of importance varied depending on the protégé, they were unable to respond to that item because an average level of importance would not have been a true representation. A separate scale for each protégé listed would have captured this information more accurately. Other deans interpreted this item to mean their average importance in assisting a protégé or protégés in obtaining their first administrative position rather than on an individual basis. Since the mean was taken for responses to this item, this probably did not affect those calculations to a great extent. There was, however, a loss of descriptive information.

Due to the nature of the inquiry, this study was limited to using a subjective measure of career-advancement. More objective measures of career advancement used in mentoring studies in the business setting, such as rate of advancement or promotion and salary attainment used by Scandura or number of promotions used by Dreher and Ash, were not transferable to pharmacy academia.<sup>9,13</sup> This study also required deans to do a self-appraisal of the effect of their mentoring on the career advancement of his or her protégé, which was also subjective.

The mentoring scale adapted for use in this study did not account for the possibility of negative mentoring relationships. While negative mentoring relationships may have a deleterious effect on career advancement, this facet of mentoring was not explored in this study. The presumption of positive mentoring relationships, while not always true, could lead to social desirability bias in responses.<sup>17,27</sup> While confidentiality was assured, anonymity could not be, and given the small population of pharmacy deans, respondents might have been more hesitant to respond to any items related to negative mentoring received. Furthermore, respondents would be even less likely to divulge negative mentoring relationships, especially ones in which they were the mentor, even though the protégé can be responsible for a negative relationship.

### **CONCLUSIONS**

While 90.2% of current pharmacy deans reported receiving mentoring, only 78% are currently serving as mentors. Overall, career-related mentoring was received

to a greater extent than psychosocial mentoring functions in respondents' preparation for the pharmacy deanship. There was no difference in the extent of career-related vs psychosocial mentoring functions provided by current deans. Gender did not play a significant role in whether mentoring was received or provided. The mentoring function of exposure and visibility had a stronger influence on career advancement for female deans ( $r = 0.815$ ) than for male deans ( $r = 0.341$ ) ( $p = 0.05$ .) While the correlation of 0.815 was based on the responses of only 8 female pharmacy deans, those women represented nearly the entire population of female pharmacy deans. There were no other differences in mentoring and career advancement between male and female deans. Deans rated past mentoring and current mentoring provided as having moderate importance in career advancement, indicating that further research is needed to determine what other factors contribute to the career advancement of pharmacy deans.

AACP is in the unique position of being able to continue providing valuable programming to current and aspiring pharmacy deans. Increasing programming at AACP that is aimed at development and administrative mentoring, especially programs specifically related to career development and career advancement, could provide a valuable asset in recruiting and preparing for the deanship. The distinction between career development and advancement will potentially help meet the needs of those deans not currently serving as mentors, or who do not desire to serve as mentors but rather as role models or advisors. AACP programming can also be used for recruitment activities to increase the supply of future pharmacy deans.

While further investigation is needed, there could be an untapped potential for networking and mentoring as suggested by Wolverton and Poch who examined the similarities in the backgrounds of corporate CEOs and academic deans.<sup>33</sup> Alternative mentoring relationships, such as peer mentors, should also be explored as a method to provide administrative mentoring to individuals who desire such opportunities for career advancement. Individuals who do aspire to become deans should seek out informal administrative mentoring relationships. Informal administrative mentoring relationships would potentially provide a broader range of mentoring functions, especially psychosocial mentoring functions. Given the strong correlation between the mentoring function of exposure and visibility and career advancement of female deans, promising female administrative candidates should be identified and provided exposure to future opportunities and assignments that would increase their visibility to decision-makers in their institution.

Further research is needed to determine what other factors, besides administrative mentoring, contribute to the career advancement of pharmacy deans. Differences in formal vs informal mentoring relationships should also be explored.

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