Preceptor Development Series

National Survey Regarding the Importance of Leadership in PGY1 Pharmacy Practice Residency Training

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ABSTRACT

Background: Leadership is considered a professional obligation for all pharmacists. It is important to integrate leadership training in residency programs to meet the leadership needs and requirements of the profession.

Objective: To evaluate the importance of leadership development during postgraduate year 1 (PGY1) pharmacy practice residency training as perceived by new practitioners.

Methods: A 15-question online survey was distributed to residency-trained new practitioners to assess (1) amount of time dedicated to leadership training during residency training, (2) different leadership tools utilized, (3) residents' participation in various committees or councils, (4) perceived benefit of increased leadership training, (5) importance of having a mentor, (6) understanding of the residency organization's strategic objectives, (7) discussion of Pharmacy Practice Model Initiative (PPMI) during residency training, and (8) adequacy of leadership training in preparation to become a pharmacy practice leader.

Results: Although the majority of resident respondents had less than 20% of their residency devoted to leadership, nearly all survey participants acknowledged that leadership is an important component of PGY1 residency training. Residents agreed that their residency experience would have benefited from increased leadership opportunities. Most residents were knowledgeable about their organization's strategic objectives but did not have a full understanding of pharmacy initiatives such as the PPMI.

Conclusion: Feedback from residents indicates that an optimal dedication to leadership training would range between 20% and 30% of the residency year. Increased focus on PPMI, mentorship, and expanded use of leadership tools can serve as a way to help meet the future leadership needs of the pharmacy profession and help to better prepare residents to become pharmacy practice leaders.

Key Words—administration, leadership, residency, training

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Leadership training is an integral aspect of pharmacy residency programs. The American Society of Health-System Pharmacists (ASHP) Council on Pharmacy Management released a statement in 2011 declaring that all pharmacists have a professional obligation to serve as a leader.¹ ASHP also recognizes leadership as being one of the key characteristics of a professional.² Leadership is an

important component to continue advancing the pharmacy profession and thus should serve as a professional requirement for all pharmacists.³ In 2004, a survey was conducted to determine the future trends of pharmacy leadership, and results of the survey showed an expected significant gap in pharmacy leadership within the next 5 to 10 years.⁴ That survey highlighted the importance of leadership and the

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need to develop future leaders to fill this leadership void. A follow-up assessment in 2011 showed that despite development of new leadership programs, there was still a potential for a leadership gap over the next 10 years.⁵ Pharmacy residents, as the future of our profession, require an incorporation of leadership training in a postgraduate year 1 (PGY1) residency program as a strategy to help meet the leadership needs of the profession in the coming years.

The purpose of this survey was to evaluate the importance of leadership training during a PGY1 pharmacy practice residency experience as perceived by new practitioners who have either completed or are currently completing a PGY1 pharmacy residency.

METHODS

A 15-question national survey was developed by a PGY2 health system pharmacy administration resident and a PGY2 infectious diseases pharmacy resident. Six of the 15 questions were designed to incorporate a 5-point Likert scale where 1 indicated *strongly disagree* and 5 indicated *strongly agree* using Google Forms. The remaining questions consisted of multiple choice-type inquiries. A beta-test of this survey was performed with a group of PGY1 and PGY2 residents from local institutions. This national survey was distributed electronically in early November 2014 via ASHP's New Practitioners Forum to pharmacists who had completed or were in the process of completing a PGY1 pharmacy practice residency within the last 5 years. A reminder for the opportunity to participate in the survey was reposted in late November. The survey was available for 35 days and closed in early December 2014. Survey respondents submitted their information in a blinded process. The survey was conducted to assess (1) amount of time dedicated to leadership training during residency training, (2) different leadership tools utilized, (3) residents' participation in various committees or councils, (4) perceived benefit of increased leadership training, (5) importance of having a mentor, (6) understanding of the residency organization's strategic objectives, (7) discussion of Pharmacy Practice Model Initiative (PPMI) during residency training, and (8) adequacy of leadership training in preparation to become a pharmacy practice leader. Other data related to demographics were collected, including gender, year of residency completion, and type of residency completed (ie, ambulatory care, acute care, community practice, combined residency). Survey respondents who did not answer one or more of

the required questions or respondents who did not complete a residency within the 5 years preceding the survey initiation date were not included. Descriptive statistics were used to analyze all of the survey participants' responses. The survey form can be referenced in the **Appendix**.

RESULTS

There were 210 participants out of 4,764 subscribers (4.4%) to ASHP's New Practitioners Forum in the national survey conducted during November 2014. Application of exclusion criteria yielded a total of 193 participants for analysis as summarized in **Table 1**. The primary reason for exclusion was residency completion date prior to 2010; this was outside the new practitioner aim of within 5 years of practice from when this survey was conducted. The eligible participant analysis pool included 151 (78.2%) women and 42 (21.8%) men. The most common primary residency practice site of individuals was the acute care setting ($n = 131$; 67.9%). A majority of individuals indicated that 10% or less of their residency training was spent on leadership ($n = 77$; 39.9%), followed by 70 applicants (36.3%) noting that 20% of their postgraduate residency training was dedicated to leadership (**Table 2**). However, 83.4% of programs had some type of required leadership or

Table 1. Characteristics of survey respondents ($N = 193$)

Characteristics	n (%)
<i>Year PGY1 residency was completed</i>	
Current residents (2015)	44 (22.8)
2014	59 (30.6)
2013	46 (23.8)
2012	30 (15.5)
2011	12 (6.2)
2010	2 (1)
<i>Gender</i>	
Female	151 (78.2)
Male	42 (21.8)
<i>Practice site</i>	
Acute care	131 (67.9)
Ambulatory care	24 (12.4)
Other (including combined PGY1/PGY2)	24 (12.4)
Community practice	14 (7.3)

Note: PGY = postgraduate year.

Table 2. Survey respondents indicating the percentage of PGY1 residency training devoted towards leadership^a

Percentage of leadership training	Respondents					
	Overall (n=193)	2011 (n=12)	2012 (n=30)	2013 (n=46)	2014 (n=59)	Current (n=44)
≤10%	77 (39.9)	5 (41.7)	13 (43.3)	16 (34.8)	28 (47.5)	15 (34.1)
20%	70 (36.3)	4 (33.3)	13 (43.3)	16 (34.8)	16 (27.1)	21 (47.7)
30%	29 (15)	1 (8.3)	4 (13.3)	9 (19.6)	10 (16.9)	4 (9.1)
40%	9 (4.7)	1 (8.3)	0 (0)	2 (4.3)	2 (3.4)	3 (6.8)
≥50%	8 (4.1)	1 (8.3)	0 (0)	3 (6.5)	3 (5.1)	1 (2.3)

Note: Values provided as n (%). PGY = postgraduate year.

^a2010 included in overall analysis but not represented as individualized column.

administration rotational or longitudinal component (Table 3). Fourteen residents noted that their residency programs did not offer an administrative or leadership experience.

Residents were asked to rate whether they believed that leadership training was an important aspect of their postgraduate residency training using a 5-point Likert scale (Table 4). The majority of survey respondents agreed that leadership is important during PGY1 training. More than half of respondents indicated that their residency experience would have benefited from increased leadership opportunities or experiences. More than a quarter of residents ($n = 49$; 25.4%) noted that they did not have a formal mentor. Out of the residents who had a mentor during their PGY1 residency training, nearly all agreed that their mentor was ideal for leadership growth. Although a majority of current or past residents agreed that they understood their organization's strategic objectives, most residents were unaware of the rationale and objectives of PPMI due to a lack of discussion and emphasis during their residency.

When gauging residency-trained pharmacists to determine whether active leadership participation in both internal and external committees/councils was encouraged, we found that fewer than half ($n = 84$; 43.5%) illustrated program support (Table 3). Forty-five residents (23.3%) did not participate in either internal or external committees or councils. Of the 148 participants who noted some involvement in committees or councils, fewer than half (43.9%) sought external leadership opportunities.

In an attempt to identify the utilization of available tools for leadership training, residents were questioned about common instruments (Table 3). The primary leadership tool utilized by residency pro-

grams was discussion of various leadership articles ($n = 119$; 61.7%). The second and third most common tools were construction of a mission/vision statement ($n = 102$; 52.8%) and personal philosophy ($n = 87$; 45.1%). Personality assessments were used by 42.5% of residents, Whitney award lectures by 23.8%, and StrengthsFinder assessment by 23.8%. Attendance at an annual resident retreat was utilized the least.

Although more than half of the 193 participants believed that their PGY1 residency training adequately prepared them to be a pharmacy practice leader, the majority of new practitioner resident respondents felt that there was a need for improvements in leadership experience training.

DISCUSSION

The results of this national survey regarding the importance of leadership training during PGY1 residency confirm the notion that leadership is an integral part of postgraduate training. The survey results also highlight the need for improved efforts by residency programs to incorporate more leadership opportunities to adequately prepare residents to become pharmacy practice leaders. Although leadership skills are developed over time through experience, it is imperative that leadership experiences be integrated early during residency training to provide a strong foundation for the future leaders of the profession. Additional leadership training opportunities, such as dual Doctor of Pharmacy and Masters in Business or Hospital Administration degree programs, and various leadership institute programs are also available.

The tendency of residency training programs to devote a majority of resources to patient care and clinical activities at the expense of leadership development was identified by Ivey.⁶ Ivey recognized the

Table 3. Leadership tools and experiences utilized during PGY1 residency training (*N* = 193)

Characteristics	<i>n</i> (%)
<i>Leadership tools</i>	
Other leadership articles	119 (61.7)
Mission/vision statement	102 (52.8)
Personal philosophy	87 (45.1)
Personality assessment (ie, DiSC, Myers-Briggs)	82 (42.5)
StrengthsFinder assessment	46 (23.8)
Review of Harvey A.K. Whitney Award lectures	46 (23.8)
Annual resident retreat	38 (19.7)
<i>Leadership/administration rotational experiences offered</i>	
Administration required rotation	103 (53.4)
Leadership + administration required rotations	45 (23.3)
Available as elective rotations	18 (9.3)
Not available as a rotation	14 (7.3)
Leadership required rotation	13 (6.7)
<i>Was participation in committees or councils encouraged?</i>	
Both institutional (internal) and external	84 (43.5)
Yes, for institution specific committees (ie, Medication Safety, Antimicrobial Stewardship, Pharmacy & Therapeutics)	71 (36.8)
Not encouraged	26 (13.5)
Yes, for local, state, or national committees (ie, ASHP, ACCP, state society)	12 (6.2)
<i>Were you on a committee or council?</i>	
Yes, institutional level	103 (53.4)
Institutional only	83 (80.6)
Institutional + local	12 (11.6)
Institutional + local + state + national	5 (4.9)
Institutional + local + state	3 (2.9)
No involvement	45 (23.3)
Yes, national level	33 (17.1)
Yes, state level	26 (13.5)
Yes, local level	20 (10.4)

Note: ACCP = American College of Clinical Pharmacy; ASHP = American Society of Health-System Pharmacists; PGY = postgraduate year.

increased number of new practitioners who were unknowledgeable about the operations of the pharmacy department. Currently, these new practitioners

Table 4. Survey responses regarding experiences and attitudes of leadership training in a residency program (*N* = 193)

Leadership experiences	Mean $\pm$ SD ^a
Having a mentor during my PGY1 residency was important to my leadership growth. ^b	4.24 $\pm$ 0.96
I believe leadership training is an important part of PGY1 residency training.	4.24 $\pm$ 0.89
I understood my organization's strategic objectives.	3.78 $\pm$ 0.97
My program adequately prepared me to be a pharmacy practice leader.	3.76 $\pm$ 0.85
My PGY1 residency training would have benefited from increased leadership opportunities and experiences.	3.67 $\pm$ 0.90
My PGY1 residency discussed or emphasized PPMI to which I can attest full understanding.	2.84 $\pm$ 1.27

Note: PGY = postgraduate year; PPMI = Pharmacy Practice Model Initiative.

^aBased off a 5-point Likert scale, where 1 = *strongly disagree* and 5 = *strongly agree*.

^bThe total number of respondents was 144 as 49 participants did not have a formal mentor.

have difficulty integrating clinical expertise learned during postgraduate training with leadership skills needed to succeed in a highly complex pharmacy department.⁶ Survey results confirm this notion by illustrating that a majority of residents perceived that less than 20% of their residency program was allocated toward leadership development. However, it is important for the future pharmacy practice leaders to have a combination of clinical and administrative abilities in order to continue advancing pharmacy practice. As pharmacy practice continues to evolve, initiatives such as ASHP's PPMI will become more significant. PPMI was first introduced in 2010 to encourage leadership by promoting pharmacist integration into various patient care teams. Yet, survey results indicate that only 31% of postgraduate-trained residents had PPMI emphasized at their program and 40% of respondents were in disagreement that their PGY1 residency discussed the rationale and goals behind PPMI. This presents an opportunity for residency programs and pharmacy department directors to collaboratively mentor current residents about important strategic initiatives such as the PPMI.

Having a mentor to foster and guide growth in a variety of proficiencies during PGY1 training can be highly beneficial for residents. Mentors have a wealth of knowledge and are integral in helping residents

develop the characteristics they need to be pharmacy practice leaders. Many professional acquaintances may begin through mandatory exchanges with a variety of individuals during training, but residents should make a conscious choice to identify and choose a mentor in order to develop that relationship as a key aspect of continued success throughout their pharmacy career. As evident by survey results, formal mentorship was not highlighted or utilized during residency training by 25% of residents. Of the residents who had mentors, nearly all agreed that mentorship was vital to foster leadership growth. Professional associations in the form of internal or external committees and councils can serve as a means for residents to exercise leadership responsibilities. Internal committees allow residents to contribute to their institution, whereas external committees provide residents with the opportunity to contribute to the profession. When surveying residency program support for involvement of both internal and external committees, fewer than half of residents perceived that active participation in both were encouraged. By promoting involvement in various committees and councils, residency programs can increase leadership exposure and opportunities for residents.

Reinforcement and evaluation of a resident's leadership proficiencies can be accomplished during residency training through a multitude of channels. Fuller⁷ stated that residents developed an increased understanding of personal leadership strengths and weaknesses by utilizing tools such as Harvey A.K. Whitney lectures, leadership philosophies/principles, StrengthsFinder assessment, communication and conflict-mode assessment media, or attendance at a resident retreat. This survey confirmed the utilization of these resources in various programs. However, of these resources, an annual resident retreat, StrengthsFinder assessment, and review of Harvey A.K. Whitney award lectures were the least utilized. Due to the lack of leadership experience noted by residents in the survey, incorporation of more leadership tools in residency programs will provide additional opportunities for leadership development.

Limitations of this survey include a small sample size, which may not accurately reflect the residency-trained new practitioner community as a

whole. However, it does provide current insights into new practitioners' perceptions regarding leadership in residency training. Due to an electronic survey method, response rate and the inability to limit multiple residents from the same program who received equivalent training from participating in the survey served as an additional limitation.

CONCLUSION

The vast majority of residents agree that their residency training would have benefited from increased leadership opportunities and experiences. Feedback from residents indicated that leadership training should optimally take up 20% to 30% of the residency year. Increased focus on PPMI, mentorship, and expanded use of leadership tools can help to better prepare residents to become pharmacy practice leaders and meet the future leadership needs of the pharmacy profession.

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APPENDIX

Leadership in PGY1 Pharmacy Practice Residency Training Questionnaire

1. What year did you complete a PGY1 pharmacy practice residency? _____
(example: 2014-2015)
2. Are you a male or a female?
 - a. Male
 - b. Female
3. What was the primary focus of your PGY1 residency program?
 - a. Acute care
 - b. Ambulatory care
 - c. Community practice
 - d. Other (includes combined specialty PGY1/PGY2 programs)
4. How much of your PGY1 residency training time was devoted toward leadership?
 - a. 10% or less
 - b. 20%
 - c. 30%
 - d. 40%
 - e. 50% or more
5. I believe leadership training is an important part of a PGY1 residency.
 - a. 1 (strongly disagree)
 - b. 2 (disagree)
 - c. 3 (neutral)
 - d. 4 (agree)
 - e. 5 (strongly agree)
6. Which of the following leadership tools were utilized during your PGY1 residency program? (Select all that apply.)
 - a. Annual resident retreat
 - b. StrengthFinders assessment
 - c. Personality assessment tests (ex: DiSC, Myers-Briggs)
 - d. Review of Whitney Award lectures
 - e. Other leadership article discussions
 - f. Mission/vision statement
 - g. Personal philosophy
7. My PGY1 residency training would have benefited from increased leadership opportunities/experiences.
 - a. 1 (strongly disagree)
 - b. 2 (disagree)
 - c. 3 (neutral)
 - d. 4 (agree)
 - e. 5 (strongly agree)
8. Having a mentor during my PGY1 residency was important to my leadership growth.
 - a. 1 (strongly disagree)
 - b. 2 (disagree)
 - c. 3 (neutral)
 - d. 4 (agree)
 - e. 5 (strongly agree)
 - f. Not applicable - did not have a formal mentor
9. Was pharmacy practice leadership or administration a required rotation/longitudinal experience during your PGY1?
 - a. Leadership was required.
 - b. Administration was required.
 - c. Both were required.
 - d. Available as electives
 - e. Not available as a rotation
10. If available, did you complete a leadership or administration rotation/longitudinal elective during your PGY1?
 - a. No
 - b. Yes
11. Was active participation in committees or councils encouraged during your PGY1?
 - a. No
 - b. Yes, for institution specific committees (eg, Med Safety Committee, Antimicrobial Stewardship Committee, Pharmacy & Therapeutics)
 - c. Yes, for local, state, or national committees (eg, ASHP, ACCP, State Society)
 - d. Both institutional (internal) and external involvement were encouraged.

12. Were you on a committee/council during PGY1 (select all that apply)?
- a. No
 - b. Yes, institutional level
 - c. Yes, local level
 - d. Yes, state level
 - e. Yes, national level
13. My PGY1 residency discussed or emphasized PPMI to which I can attest full understanding.
- a. 1 (strongly disagree)
 - b. 2 (disagree)
 - c. 3 (neutral)
 - d. 4 (agree)
 - e. 5 (strongly agree)
14. As a PGY1 resident I understood my organization's strategic objectives.
- a. 1 (strongly disagree)
 - b. 2 (disagree)
 - c. 3 (neutral)
 - d. 4 (agree)
 - e. 5 (strongly agree)
15. My PGY1 residency program adequately prepared me to be a pharmacy practice leader.
- a. 1 (strongly disagree)
 - b. 2 (disagree)
 - c. 3 (neutral)
 - d. 4 (agree)
 - e. 5 (strongly agree) ■