SPECIAL ARTICLE

The Influence of an Academic Pharmacy Mentorship Program on Mentees' Commitment to Pursue an Academic Career

Caroline M. Sierra, PharmD,^a Jennifer Adams, PharmD, EdD^b

^a Loma Linda University School of Pharmacy, Loma Linda, California

^b American Association of Colleges of Pharmacy, Alexandria, Virginia

Submitted May 25, 2016; accepted November 4, 2016; published February 25, 2017.

The objective of this study was to determine the influence of the American Association of Colleges of Pharmacy (AACP) Walmart Scholars Program on mentees' attitudes towards and decision to pursue a career in academia. Upon completion of the AACP Walmart* Scholars Program, wherein mentor-mentee pairs attend the AACP Annual Meeting to learn about academic pharmacy careers, mentees wrote essays evaluating the program. Their views on academic pharmacy careers were analyzed for themes in the evaluations. Of the mentees who addressed the impact of the program on their perspectives on a career in academic pharmacy, over half stated the program positively influenced pursuit of such a career. This reinforces the importance of mentorship for those interested in or new to academic pharmacy.

Keywords: academia, faculty, mentorship, mentor

INTRODUCTION

Mentorship in academia has long been a mainstay in training, assisting, and developing new faculty members. The field of pharmacy is no different, and with increased demand for faculty members as new pharmacy schools open around the country, it is important to develop new faculty members early in their careers. The American Association of Colleges of Pharmacy (AACP) Walmart Scholars Program pairs promising pharmacy students, residents, fellows, and graduate students in the pharmaceutical sciences who wish to pursue a career in pharmacy education with mentors who can guide them through their evolution into faculty members.

The role of the mentor in developing these candidates cannot be understated. Frankel and colleagues found that a pharmacist's confidence and development of a sense of responsibility after graduation were directly linked to the quality of mentorship received during pharmacy school.¹ Expanding upon this and recognizing the need to increase the number of people interested in academic pharmacy positions, a task force from the Council of Faculties and Council of Deans at AACP developed a set of recommendations

regarding academic pharmacy. These recommendations included constructing a mentoring program to expose students, residents, fellows, and others to the positive elements of the academy.² Similarly, a coalition of faculty members from the University of Arkansas for Medical Sciences College of Pharmacy stated the necessity for mentoring programs, especially for junior faculty members, across all schools and colleges of pharmacy.³

In a survey of more than 1,000 faculty members, approximately 59% stated that encouragement from one or more faculty members had a strong influence on their decision to continue their education and pursue post-graduate training.⁴ Likewise, the influence of a mentor inspired students completing a community pharmacy residency to pursue their goals of a career in academia.⁵ Time and again, studies, surveys, and data collection have shown that a strong mentoring relationship can increase junior faculty member retention. This may be partially due to the decrease in stress junior faculty members experience when they have a strong working relationship with their mentor.⁶ Across the fields of dentistry, medicine, nursing, and pharmacy, junior faculty members cited not having a mentor as a barrier to scholarship,⁷⁻⁹ which is an important component of an academic career. Furthermore, a survey of residents pursuing academic medicine revealed that 93% of respondents felt that mentorship was important to making the decision to pursue an academic career.¹⁰ Many pharmacy programs have established formal mentorship programs as a means of developing successful pharmacy faculty members.

Corresponding Author: Jennifer Adams, American Association of Colleges of Pharmacy, 1727 King St., Second Floor, Alexandria, VA 22314. Tel: 703-739-2330, Ext. 1024. Fax: 703-836-8982. E-mail: jadams@aacp.org

*The AACP Walmart Scholars Program is paid for by a grant from Walmart Corp. Walmart staff participate as reviewers, but do not have control over the final selection of the AACP Walmart Scholars.

The fact that mentors are often critically important to the success of new faculty members speaks not only to the importance of training mentors in how to effectively coach their protégés, it also highlights the necessity of developing programs to bring mentors and mentees together. The AACP Walmart Scholars Program serves and expands upon this. The program not only brings the faculty mentor and protégé together, it places them in an environment focused on advancing and improving pharmacy education.

PROGRAM DESIGN

The AACP Walmart Scholars Program is designed to expose interested students, residents, fellows, and graduate students to careers in pharmacy academia. To be eligible for the program, the applicant must acquire or already have a mentor and the two must apply as a pair for acceptance into the program. The application process requires submission of two essays by the mentee, one stating his or her career goals and another outlining his or her perspectives on academic pharmacy; the faculty mentor's statement in support of the student in addition to describing the mentoring relationship; a completed program application; and a statement from the office of the dean of the applicant's graduate program stating the student's grade point average and enrollment status. If the applicant has already graduated, he or she must submit

a letter from the office of the dean at the school from which they graduated stating their grade point average upon graduation. These applications are evaluated holistically and pairs are chosen based on a predefined set of criteria (Table 1).

If selected, mentor-mentee pairs attend the AACP Annual Meeting, which focuses on improving academic pharmacy by discussing new trends in teaching, exploring the latest tools in pharmacy education, and encouraging communication among pharmacy educators from across the country. Afterwards, the mentees are required to write an evaluation of the program, outlining their personal impressions of the Teachers Seminar, a specific portion of the meeting focused on developing new teachers; the meeting overall; and the program's impact on the mentee's personal academic and career goals.

In a survey conducted in 2012, 100% of respondents stated they would participate in the AACP Walmart Scholars Program again if given the opportunity. The data also showed that AACP Walmart Scholars have an excellent track record of entering academia. From surveys conducted in 2008 and 2012 of the program's prior mentees, 32% of AACP Walmart Scholars pursued a career in academic pharmacy (Table 2). This number may seem underwhelming, but many mentees cannot obtain an academic position immediately after their participation in the AACP Walmart Scholars Program. They may not yet

Table 1. AACP Walmart Scholars Program Selection Criteria (Total Weight Factor=10)

Credentials of the Student (Weight Factor=6)

The GPA verification letter, the Student's Statement of Career Goals, and the Academic Pharmacy Essay are used for this criterion.

The degree to which the student is motivated to pursue an academic career is evaluated. Evaluation involves an assessment of how closely the personal and academic credentials of the student match with the goal of the Program.

Credentials evaluated (60 possible points):

Academic criteria (GPA), 5 points

Career statements/goals, 15 points

Do the student's goals relate to the goals of the program? 5 points

Articulation of goals, 5 points

Grammar, 5 points

Evidence of professional involvement, 5 points

Research/teaching experience, 15 points

Academic pharmacy essay, 20 points

Faculty Mentor's Support of Student (Weight Factor=4)

The faculty mentor's description of the student's qualifications and the capacity to succeed in this type of Program is used for this criterion. The degree to which the faculty member believes the student will benefit from participating in the Program is evaluated.

Aspects evaluated (40 possible points):

Degree of mentor's engagement with the student/resident/fellow, 10 points

Ongoing plan for mentorship, 10 points

Mentor's assessment of student's qualities or attributes that give them a higher propensity for academic pharmacy compared to other students, 20 points

Abbreviations: AACP=American Association of Colleges of Pharmacy

Table 2. Demographics of AACP Walmart Scholars Program Participants*

	2008 (N=45) N (%)	2012 (N=73) N (%)	Total (N=118) N (%)
Gender			
Male	15 (33)	19 (26)	34 (29)
Female	30 (67)	54 (74)	84 (71)
Academic credentials ^a			
PharmD	38 (84)	66 (90)	104 (88)
PhD	4 (9)	14 (19)	18 (15)
MSPHarm	1 (2)	8 (11)	9 (8)
MPH	2 (4)	1 (1)	3 (3)
MA	1 (2)	1 (1)	2 (2)
BCPS	3 (7)	11 (15)	14 (12)
Other	0 (0)	25 (34)	25 (21)
Year attended Annual Meeting			
2005	8 (18)	-	8 (7)
2006	16 (36)	-	16 (14)
2007	21 (47)	-	21 (18)
2008	-	6 (8)	6 (5)
2009	15 (33)	15 (33)	15 (33)
2010	-	21 (29)	21 (18)
2011	-	28 (38)	28 (24)
Attended Annual Meeting since being a Walmart Scholar			
Yes	13 (29)	18 (25)	31 (26)
No	32 (71)	55 (75)	87 (74)
Would repeat the program			
Yes	44 (98)	72 (99)	116 (98)
No	1 (2)	1 (1)	2 (2)
Encouraged others to participate in the program			
Yes	37 (82)	64 (88)	101 (86)
No	8 (18)	9 (12)	17 (14)
Continue relationship with mentor			
Yes	42 (93)	62 (85)	104 (88)
No	3 (7)	11 (15)	14 (12)
Became a pharmacy faculty member			
Yes	18 (40)	20 (27)	38 (32)

Abbreviations: AACP=American Association of Colleges of Pharmacy; PharmD=Doctor of Pharmacy; PhD=Doctor of Philosophy; MSPHarm=Master of Science in Pharmacy; MPH=Master of Public Health; MA=Master of Arts; BCPS=Board Certified Pharmacotherapy Specialist

*Percentages may not total 100 due to rounding

^aParticipants may hold more than one academic credential

have completed their degree or may require additional training before they are qualified to teach at a college or school of pharmacy. Also, many mentees have been inspired by the AACP Walmart Scholars Program to pursue an additional degree, and so may not have attained a faculty position at the time the surveys were conducted.

REVIEW OF THE PROGRAM

Every mentee who participates in the AACP Walmart Scholars Program is required to complete an evaluation of their experience. Mentees evaluate the program

based upon the following: personal impressions of the AACP Teachers Seminar; personal impressions of the AACP Annual Meeting; reasons for pursuing a career in academic pharmacy; the impact of the experience on personal, academic, and career goals; and other comments and impressions of the program, including suggestions for improvement. In 2014, all evaluations received since the beginning of the program were collected and read by a single reviewer, who conducted a thematic analysis based on the commentary in the evaluations. The responses were coded based on the researcher's opinions

Table 3. Mentees' Responses to How the AACP Walmart Scholars Program Influenced Their Commitment to a Career in Academic Pharmacy

Mentee's Response	N (%)	Comments from Evaluations
Theme 1: Strengthened interest in academic pharmacy		
Strengthened the mentee's interest in pursuing a career in academic pharmacy	122 (36.5)	"This experience is so very valuable. . .it strengthened my commitment to become a pharmacy professor and mentor. . ."
Reaffirmed the mentees' interest in academic pharmacy	84 (25.2)	
Made the mentee's more excited for a career in academic pharmacy	43 (12.9)	
Enhanced interest in academic pharmacy	2 (0.6)	
Theme 2: Considered alternative career		
Caused the mentee to delay entering academic pharmacy	9 (2.7)	". . .the AACP Annual Meeting and Teachers Seminar helped me to recognize that a full time career in academic pharmacy is not realistic for me."
Led the mentee to want to be a preceptor rather than enter academic pharmacy	5 (1.5)	
Led the mentee to maintain teaching ties with academia but pursue employment elsewhere	3 (0.9)	
Led the mentee to reconsider a career in academic pharmacy	2 (0.6)	
Made the mentee no longer interested in academic pharmacy	1 (0.3)	
Theme 3: Provided additional information about academic pharmacy		
Expanded the mentee's views on academic pharmacy	29 (8.7)	"After attending this meeting, I feel like my future has gotten a bit clearer."
Clarified views on academic pharmacy	9 (2.7)	
Other		
Did not change in the mentee's view on academic pharmacy	25 (7.5)	"The experience I gained from attending this meeting has not necessarily changed my career goals."
Total	334 (100)	

AACP=American Association of Colleges of Pharmacy

of the mentees' response regarding the influence the AACP Walmart Scholars Program had on their opinion of and decision to pursue a career in academia. The coded responses were grouped into categories intended to encompass the major themes of the commentary review. The categories and frequencies of the responses are presented in Table 3.

Of the 509 mentees who participated in the AACP Walmart Scholars Program between 2005 and 2013, over two-thirds commented on the influence of the program on their views about a career in pharmacy academia. The majority of participants stated that the program had a positive influence on their decision to pursue an academic career. Many mentees noted the importance of their mentors in helping them make the most of the experiences and opportunities presented to them at the AACP Annual Meeting. They also underscored the perspectives gained from their mentors as being incredibly important in advancing their careers. Participants stated that the mentoring relationship was the reason they were so enthusiastic about the AACP Walmart Scholars Program and that one of the best parts of the program is the ability to attend the

events with their faculty mentors. Because of the positive influence their mentors had on them professionally and the positive impact of the AACP Walmart Scholars Program, some mentees recommended that all pharmacy students should find a mentor.

DISCUSSION

These results reflect the overwhelming success the AACP Walmart Scholars Program has had in encouraging mentees to pursue a career in academic pharmacy and in developing their interest in such a career. In survey data collected by AACP, 32% of previous AACP Walmart Scholars who were surveyed in 2008 and 2012 and participated in the program between 2005 and 2011 pursued a career in academic pharmacy. Importantly, 88% of these mentees continued a relationship with their mentor following their experience as an AACP Walmart Scholar (unpublished data collected by AACP). The relationship that develops between the mentor and mentee is clearly one that lasts beyond the timeline of the AACP Walmart Scholars Program and therefore can continue to promote a career in academia to the mentee. This evidence of

additional mentoring suggests that the program is serving its larger purpose.

The information contained in these evaluations reinforces previous research in support of similar mentorship programs. Many mentees participating in the AACP Walmart Scholars Program explicitly stated that their mentor was a great source of inspiration and encouragement and that their mentor made the entire experience more useful and worthwhile than it would have been had they attended on their own. Other students recommended that, independent of the AACP Walmart Scholars program, all pharmacy students find a mentor to help propel them forward in their career of choice. This is in line with data collected by other researchers stating the impact and importance of having a mentor to guide students, fellows, residents, and young faculty members toward a career in academia. Junior faculty members often cite the lack of mentorship as a major difficulty in starting their career in academia,⁷⁻⁹ and this program emphasizes the importance of a mentor in furthering one's academic career.

It is impossible to distinguish between the impact of the AACP Walmart Scholars Program as a whole, which included each mentee's participation in the AACP meeting as well as in certain components of the meeting (eg, the Teachers Seminar), and the impact of the mentee-mentor relationship alone in influencing mentees' views of academic pharmacy. However, based on a subjective evaluation of the mentees' responses to the questions about the program experience, clearly components of the program significantly influenced the mentee, including their mentors. Those with mentors who were committed, involved, and helpful seemed to indicate that their mentor was more influential on their views of academic pharmacy compared with students who did not describe such direct involvement from their mentor.

For programs and organizations looking to develop a similar program, building relationships with faculty members is influential in encouraging students to develop a career in academia.¹¹ Many mentees in the AACP Walmart Scholars Program stated that they had thought about a career in academia but had not pursued it, or that they were uncertain about their potential for succeeding in such a career, until they had a faculty mentor who guided and inspired them to move forward with that career choice. The feedback from this program serves as a positive reminder that relationships and connections with faculty members and academic administrators can have a major impact on many aspects of students' lives, and that encouraging, fostering, and growing these relationships is pivotal. The need for pharmacy faculty members is expected to continue to increase over the next several

years,² and developing young faculty members and others interested in entering academic pharmacy to fill this void in pharmacy education is essential.

Limitations

There are many confounding factors to consider when analyzing qualitative data. For instance, the mentees may simply have reported to the AACP Walmart Scholars Program what they thought the program evaluators wanted to hear rather than their honest opinions of the program and its influence on their views. However, because the mentees had already attended the AACP Annual Meeting and their participation in the program was largely completed at the time they submitted their evaluations, this may not have had a confounding effect. Additionally, some selection bias may have occurred as mentees who participated in the program were already more inclined toward choosing academic careers; thus, the results were likely to indicate a continued interest.

Another potential confounding factor is that all coding of the evaluations and determination of which response category the mentee's responses fit into was done by a single coder. While the same coder read and evaluated all the essays, there may have been bias or error in the coding process. In addition, the coder was a previous mentee in the AACP Walmart Scholars Program, which may have introduced bias in the coding of the responses.

CONCLUSIONS

This program illustrates the successful development and implementation of a mentorship program aimed at increasing mentees' interest in pursuing a career in academic pharmacy. The impact of a mentor in determining a student's interest in academic pharmacy, and also his or her success as a junior faculty member, is reinforced in the current literature as well as in the experiences of participants in the AACP Walmart Scholars Program. Other organizations and schools looking to begin a mentorship program can use this example to reinforce the importance of a mentor in helping students and junior faculty members in developing and solidifying their interest in and pursuit of a career in academic pharmacy.

REFERENCES

1. Frankel GEC, Austin Z. Responsibility and confidence: identifying barriers to advanced pharmacy practice. *Can Pharm J (Ott)*. 2013;146(3):155-161.
2. Beardsley R, Matzke GR, Rospond R, et al. Factors influencing the pharmacy workforce. *Am J Pharm Educ*. 2008;72(2):Article 34.
3. Kennedy RH, Gubbins PO, Luer M, Reddy IK, Light KE. Developing and sustaining a culture of scholarship. *Am J Pharm Educ*. 2003;67(3):Article 92.

4. Hagemeyer NE, Murawski MM, Popovich NG. The influence of faculty mentors on junior pharmacy faculty members' career decisions. *Am J Pharm Educ.* 2013;77(3):Article 51.
5. Clark CA, Mehta BH, Rodis JL, Pruchnicki MC, Pedersen CA. Assessment of factors influencing community pharmacy residents' pursuit of academic positions. *Am J Pharm Educ.* 2008;72(1): Article 3.
6. Fuller K, Maniscalco-Feichtl M, Droege M. The role of the mentor in retaining junior pharmacy faculty. *Am J Pharm Educ.* 2008;72(2): Article 41.
7. Smesny AL, Williams JS, Brazeau GA, Weber RJ, Matthews HW, Das SK. Barriers to scholarship in dentistry, medicine, nursing and pharmacy practice faculty. *Am J Pharm Educ.* 2007;71(5):Article 91.
8. Gubbins PO. The scholarship of teaching and learning: an opportunity for clinical faculty members in academic pharmacy and other health professions to develop a program of scholarship. *Int J Scholar Teach Learn.* 2014;8(1):3.
9. Jungnickel PW. Scholarly performance and related variables: a comparison of pharmacy practice faculty and departmental chairpersons. *Am J Pharm Educ.* 1997;61(1):34-44.
10. Yehia BR, Cronholm PF, Wilson N, et al. Mentorship and pursuit of academic medicine careers: a mixed methods study of residents from diverse backgrounds. *BMC Med Educ.* 2014;14:26.
11. Draugalis JR, DiPiro JT, Zeolla MM, Schwinghammer TL. A career in academic pharmacy: opportunities, challenges, and rewards. *Am J Pharm Educ.* 2006;70(1):Article 17.