

Preparation bootcamp for pharmacy residency application and interviews

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Abstract

Description: A six-hour Residency Bootcamp, offered to interested students, provided review and individualised feedback on student Curriculum Vitae, letters of intent, topic presentations, case-based critical thinking skills, and interview skills. Questionnaire data were used to evaluate student perceptions. School-reported match results were used to determine the residency match rates of participants of the Bootcamp.

Evaluation: A total of 24 students participated in the Bootcamp. When asked how valuable the Residency Bootcamp was for residency preparation on a scale of 1-10 (1 = not valuable and 10 = extremely valuable), students reported an average of 9.28 for the Bootcamp. A total of 23 students participated in the match and 21 students secured match for residency (91.3%).

Conclusion: A six-hour Residency Bootcamp was perceived as valuable to students in preparing for residency applications and training. Participants in the Bootcamp had a high match rate.

Keywords: *Pharmacy, Residency, Preparation, Post-Graduate Training, Match*

Introduction

With a growing number of students pursuing post-graduate year (PGY) pharmacy residency training, the competitiveness for residency positions continues to increase. For all pharmacy graduates who plan to provide direct patient care, professional organisations support the recommendation to require completion of post-graduate residency training (American College of Clinical Pharmacy, 2013; American Society of Hospital Pharmacists [ASHP], 2014). Pharmacy residency training in the United States of America consists of a one year commitment to intensive general post-graduate training (PGY1), which is equivalent to approximately three - five years of practice experience.

According to the 2016 National Matching Services data, 5,655 applicants enrolled in the match for PGY1 pharmacy residency training, and 4,609 of these applicants ranked at least one programme in the match process (National Matching Services Inc., 2016). Of the 4,609 applicants who participated in the 2016 match, 3,041 (66%) applicants had a successful match with a programme during Phase 1 (National Matching Services Inc., 2016). Since 2011, the number of available PGY1 residency positions has met only 65.1% to 71.9% of the demand determined by number of applicants participating in the match (National Matching Services Inc., 2016). The percentage of applicants who matched to a residency position has increased from 61.9% to 66% (National Matching Services Inc., 2016). Despite the increase in successful matching, 34% of applicants went unmatched during Phase 1 of the match (National Matching Services Inc., 2016). The demand for residency is increasing annually, resulting in an increasingly competitive application process.

Most schools of pharmacy offer residency information sessions, which increases student interest for pursuing a residency (Baker & Chrymko, 2005). However, given increased interest in residency, students may struggle with identifying ways to become a competitive candidate and feel unprepared for the daunting application and interview process. Students are often unfamiliar with the details of the application process including navigating Pharmacy Online Residency Centralized Application Service [PhORCAS™] and the residency showcase at the American Society of Health-System Pharmacists Midyear Clinical Meeting. Dedicated time and resources are essential to better prepare students for the residency application process. At Regis University School of Pharmacy, residency roundtables along with general education sessions are provided to educate and familiarise students with residency training. Individualised feedback on common components and requirements of the residency application and interview process is not provided in required curricular or co-curricular activities. Based on the number of students seeking individual meetings with faculty mentors to discuss residency preparation, faculty members realised the need for a formal individualised preparation process. To address this, a group of clinical faculty members created and facilitated an annual Residency Bootcamp for eight to ten students interested in pursuing residency training. This Residency Bootcamp was designed to prepare students for any type of pharmacy post-graduate residency training. The goal of the Bootcamp is to provide students with detailed information and individualised feedback about the application and interview process to improve application competitiveness and preparedness. A Curriculum Vitae (CV) and letter of intent critique, mock interview, and residency application

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overview are included in the Bootcamp. These activities were included based on the documented success of these events in various residency preparation programmes (Mancuso & Paloucek, 2004; Caballero, 2012; Koenigsfeld *et al.*, 2012; Phillips *et al.*, 2012; Rider *et al.*, 2014).

Description

The Residency Bootcamp was created and facilitated by four faculty members with various residency training backgrounds including a traditional ASHP accredited PGY1 and PGY2, an accredited PGY1 plus unaccredited PGY2, and a two year unaccredited PGY1 with Masters degree. For three years, the Residency Bootcamp was offered to interested third and fourth year pharmacy students during the Autumn Semester during a six-hour session on a Saturday. In order to provide quality, tailored feedback to each student, the Residency Bootcamp was limited to eight to ten students per Bootcamp year. This number of students was determined based on the capacity of faculty members to provide individualised feedback to each student on all components of the Bootcamp within one day. This opportunity was made available to students through a pharmacy student professional organisation fundraising event. Students self-selected based on interest in residency training and weekend availability.

One week prior to the Bootcamp session, students were asked to submit an updated CV and a specific letter of intent directed to a residency programme of interest. Submissions were emailed to the four Bootcamp faculty. Additionally, each student prepared a clinical topic-presentation prior to the Bootcamp and was encouraged to use a presentation they had already given once before. Faculty prepared specific feedback for student-submitted CVs and letters of intent prior to the start of the Bootcamp.

On the day of the Bootcamp, faculty provided the students with an agenda followed by a description of faculty educational backgrounds. Faculty presented information describing the ASHP Midyear Clinical Meeting and PhORCAS™, (PhORCAS™, 2014). Following the presentation, each student met individually with two separate faculty members to receive one-on-one feedback regarding his/her CV and letter of intent. During this time, students were also able to ask the faculty member specific questions regarding the application process or discuss a specific application plan.

In the afternoon, students participated in a mock interview, presented a clinical topic-presentation, and worked on a case vignette exercise. Faculty provided students with individualised feedback after each exercise. The mock interview included a panel of two faculty interviewers. Interview questions were based on faculty experience and questions identified by Mancuso *et al.* as commonly asked questions during residency interviews (Mancuso & Paloucek, 2004). Each student was asked a

standardised clinical question during the interview to assess critical thinking. Following the interview, the students were divided into groups of two-three with each group assigned a faculty member. Each student gave a formal ten minute clinical topic-presentation. Following the presentations, students were given a written patient case vignette to assess clinical knowledge and critical thinking skills. Each student was required to read the case, solicit the faculty for missing information needed to assess the problem (*e.g.* laboratory values), and identify medication-related problems. The students were then asked to verbally explain clinical recommendations to the faculty. The day concluded with a faculty presentation on the “do’s and don’ts” of residency interviews, including review of appropriate professional attire and behaviour.

Students were asked to complete an anonymous, voluntary questionnaire to assess the perceived value of the Bootcamp. The students were asked a total of ten questions pertaining to the value of each activity. Nine questions were assessed on a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree). The tenth question asked to provide an overall rating of the Bootcamp on a scale of 1 to 10 (1 = not valuable and 10 = extremely valuable). Student sex and previous work data were collected using the respective CV and was not tied to the anonymous questionnaire. Match data were student-reported and verified with the School of Pharmacy Dean after the completion of the 2014, 2015, and 2016 Match process. Approval from the Institutional Review Board was obtained and was approved as exempt.

Evaluation

Demographic characteristics of the questionnaire respondents are provided in Table I. Of the 24 students in the 2014-2016 Bootcamps, 22 were female and 19 students had known previous pharmacy work experience. The results of the student perception questionnaire are provided in Table II. A total of 21 out of 24 students completed the questionnaire. Of those who completed the questionnaire, all reported the Bootcamp as a valuable experience with an average overall rating of 9.28 out of 10. The students found the feedback provided on their CV, letters of intent, and interview skills to be the most valuable activities of the Bootcamp (average of 4.86, 4.9, and 4.9 respectively on the 5-point Likert scale). All students reported that the length of the Bootcamp was appropriate.

Table I: Demographic data of Residency Bootcamp participants

Characteristic	N = 24
Male, n (%)	2 (8.3%)
Known Previous College Degree	16 (66.7%)
Known Pharmacy Work Experience	19 (79.2%)

Table II: Student-reported value of Residency Bootcamp

Question	N = 21					Average
	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)	
The RBC provided me valuable information on residencies.	0	0	0	2	19	4.9
The RBC provided me valuable information on the application process.	0	0	0	7	14	4.67
The RBC provided me valuable information on the interview process.	0	0	0	2	19	4.9
The RBC provided me valuable curriculum vitae feedback.	0	0	0	3	18	4.86
The RBC provided me valuable letter of intent feedback.	0	0	0	2	19	4.9
The RBC provided me valuable presentation feedback.	0	0	1	6	14	4.62
The RBC provided me valuable interview feedback.	0	0	0	4	17	4.81
The RBC had a positive atmosphere and made me feel encouraged.	0	0	0	5	16	4.76

Question	N = 9										Average (10)
	1	2	3	4	5	6	7	8	9	10	
I would rate the RBC on a scale of 1-10 (1 = not valuable and 10 = extremely valuable) as:	0	0	0	0	0	0	0	1	13	7	9.29

1(SD)=Strongly Disagree; 2(D)=Disagree; 3(N)=Neutral; 4(A)=Agree; 5(SA)=Strongly Agree
RBC = Residency Bootcamp

Of the 24 students involved in the Residency Bootcamp, 23 pursued ASHP-accredited residencies via the Match. Table III describes residency activity among participants in the Residency Bootcamp. The student who did not submit to PhORCAS™ chose to pursue a position in community pharmacy. Of the 23 students who pursued residency, 22 students (95.7%) obtained an interview and participated in the match process. A total of 21 students out of 23 (91.3%) who ranked at least one residency program secured a residency via the Match between 2014 and 2016.

Table III: Residency Match Data

Residency Application and Interview Activity	N (%)
Applied to 1 ≥ residency programmes (N=24)	23 (95.8%)
Of those applied (N=23), interviewed with 1 ≥ residency programmes	22 (95.7%)
Of those who ranked ≥ 1 programme in the match (N=23), successfully matched with a residency programme	21 (91.3%)

The successful match rate of the students participating in the Residency Bootcamp who ranked at least one programme was 77.8% (seven out of nine students) in the 2014 match and 100% in both the 2015 and 2016 matches (14 out of 14 students). The national match rates were calculated from the number of applicants participating in the match compared to the number of applicants matched and ranged from 63.4% to 64.5% during the timeframe from 2014-2016.3 The match rates for the whole Regis University School of Pharmacy in 2014, 2015 and 2016 were 66.7%, 82.4% and 75% respectively.

Future Plans

This Residency Bootcamp is a novel way to provide students additional residency application and interview training beyond the resources already provided through the School of Pharmacy. A six-hour Bootcamp offers a balance of faculty workload between creation of a semester long course and participation in a brief residency showcase. Approximately 20-30% of the fourth year pharmacy students apply for residency training. Since the Bootcamp can only accommodate eight-ten students, future plans include exploring the ability to transition this Residency Bootcamp into a one credit hour elective to further meet the student demand. This will allow comparison of the Residency six-hour Bootcamp to a semester long one credit hour elective taught by the same faculty in the same intuition.

Limitations of the Residency Bootcamp include the small number of student participants and questionnaire nature of the data. Selection bias may affect the results as higher performing and eager students may have been more likely to take an additional six-hour residency course on the weekend. In addition, since students were voluntarily asked to prepare for several of the activities prior to the event, the students may not have found the activities as valuable if they were ill prepared.

Implementation of a similar Bootcamp could be done at other institutions allowing for focused, individualised feedback for residency applications and interviews. A six-hour weekend course may not be feasible for all institutions. Alternatives include offering the course during a weekday over a break or offering the course in small increments over a couple of weeks.

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