

INSTRUCTIONAL DESIGN AND ASSESSMENT

Perceived Value of a Pharmacy Resident Teaching Certificate Program

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Submitted October 8, 2007; accepted February 13, 2008; published October 15, 2008.

Objective. To determine the value of completing a pharmacy resident teaching certificate program on graduates' current positions of employment.

Design. Annually from 2003 to 2007, program graduates of the Indiana Pharmacy Teaching Certificate (IPTeC) program were invited to take a 13-question Web-based survey 1 year after completing the program.

Assessment. Fifty-three of the 62 graduates (85%) surveyed responded. Almost half of the respondents strongly agreed or agreed that having completed the IPTeC program helped them obtain their current position. More than 90% of respondents agreed or strongly agreed that the seminar participation and teaching experience from the IPTeC program helped them in their current position. About 80% of respondents would recommend the program to others.

Conclusion. Completing a pharmacy resident teaching certificate program helped some graduates obtain and excel in their current position.

Keywords: teaching certificate program, pharmacy residencies, careers

INTRODUCTION

Postgraduate pharmacy residency programs provide organized and directed training to build upon the knowledge and skills gained from a professional pharmacy degree program.¹ The American Society of Health-System Pharmacists (ASHP) and the American College of Clinical Pharmacy (ACCP) have embraced pharmacy residency training for all pharmacists involved in direct patient care,^{2,3} and such training is often a minimum requirement for pharmacy practice faculty positions in colleges/schools of pharmacy.⁴ Although postgraduate residency programs provide excellent clinical pharmacy training, they may not adequately prepare new pharmacy practice faculty members for the responsibilities of extensive didactic and experiential teaching.⁵ As a result, a number of teaching certificate programs for pharmacy residents have surfaced around the country.

Romanelli et al described the first teaching certificate training program for pharmacy residents at the University of Kentucky in 2001.⁶ Since its inception, this program has grown and been embraced by neighboring universities.⁷ Other programs with a variety of nuances began appearing in the literature thereafter.⁸⁻¹³ Programs for

which there are published evaluative data show enhanced confidence in teaching abilities among these graduates.^{7,12} In addition, graduates from teaching certificate programs generally have significantly more confidence in their teaching abilities than graduates from the same residency who did not complete the program.⁷

Although confidence in teaching abilities appears to increase as a result of teaching certificate program completion, little is known about the perceived effects of such programs on graduates' current positions of employment after they have completed residency training. In 2003, the Indiana Pharmacy Teaching Certificate (IPTeC) Program was designed and implemented as a residency project. The goal was to implement a multifaceted teaching certificate program involving didactic and experiential training to better prepare local pharmacy residents and fellows to be effective teachers. Preliminary data from 1 year of graduates of the IPTeC program suggest that completing the program helped graduates in their current positions.¹⁴ The objective of this study was to describe graduates' perceptions of the value of completing a pharmacy resident teaching certificate program on their current job position.

DESIGN

The basic format of the IPTeC program is consistent with similar programs. In order to obtain a certificate of completion, participants had to fulfill each of the 3 major

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components of the program: didactic seminars, teaching experience, and a teaching portfolio.

Program participants were required to attend ten 2-hour didactic seminars, which each addressed distinct topics in pharmacy education. Experienced pharmacy practice faculty members (both tenure and clinical track) from Purdue University, Butler University, and the University of Illinois at Chicago provided the didactic seminars. Most program faculty members were at the academic rank of associate professor or higher. Seminars were held weekly in Indianapolis during the fall of the residency year. By offering the seminar series in the fall, the participants could use acquired knowledge to strengthen their experiential teaching skills. Seminars were digitally videotaped and posted on the official program Web site for participants outside of the Indianapolis metropolitan area to view. The program Web site also serves as a central location for accessing seminar handouts, evaluation tools, and educational resources provided by program faculty members.

Each participant was required to perform and document at least two 60-minute classroom and/or continuing education lectures. In addition, 15 hours of other teaching experiences including, but not limited to, precepting, facilitating group discussions, and serving as a teaching assistant (TA) were required. All teaching experiences were to be documented in a log and could be completed anytime throughout the residency year. Although participants had to complete a minimum number of activities and hours to meet this requirement, these teaching experiences were not standardized. Thus, participants might have different teaching experiences, different preceptors and/or mentors, and different assessment tools for this portion of the program depending on their employment situation (eg, residency, fellowship, new faculty position) at the time the program was completed. Because the IPTeC program involved participants from many different postgraduate programs throughout the state, it was impossible to standardize the experiences for this portion of the program.

Participants had to submit a teaching portfolio by May 31st of the residency year that contained the participant's teaching philosophy, examples of supportive course materials (eg, handouts, slides, etc), teaching evaluations from preceptors or peers, and reflective self-assessments of teaching experiences. Volunteer faculty members from Purdue University and Butler University reviewed the portfolios and provided formal feedback to the participants using a standardized evaluation form.

A 13-question Web-based survey was developed to: (1) collect IPTeC graduates' demographic information, (2) determine the amounts and types of teaching experi-

ences encountered in graduates' current employment position, and (3) determine the perceived value of the IPTeC program to graduates in their current career. Six of the 13 questions on the survey instrument used a 4-point Likert scale (strongly agree, agree, disagree, strongly disagree). The other questions were in multiple-choice format. The survey questions were not pretested prior to use.

In May of each year from 2004-2007, an invitation to participate in the survey was e-mailed to IPTeC graduates from the previous year (eg, in 2004, IPTeC graduates from 2003 received the survey instrument, etc) and provided with a link to the Web-based survey instrument. Participants were asked to respond within 2 weeks. Survey responses were anonymous, but an impartial data manager could track which recipients had not responded to the survey. This data manager e-mailed reminders to nonresponders at 1 and 2 weeks after the original survey distribution. Data were analyzed using frequencies and descriptive statistics where appropriate.

ASSESSMENT

Fifty-three of the 62 IPTeC graduates from 2003-2006 responded to the survey, for a cumulative response of 85%. Approximately 68% of the respondents had been pharmacy practice residents (now known as PGY1 residents), and 23% had been specialty residents (now known as PGY2 residents) at the time they participated in the program. The remaining respondents were industry fellows or other during the time in which they participated (Table 1). The majority of respondents were PGY2 residents (approximately 26%) or clinical pharmacists in a hospital setting (approximately 21%) at the time they completed the survey instrument. Only 7.5% were employed as faculty members at the time they responded (Table 1). Other demographic information is provided in Table 1.

About 50% of respondents dedicated less than 5 hours each week to teaching responsibilities and about 25% averaged 5-10 hours each week (Table 1). At the time of the survey, most respondents had participated in didactic lectures/presentations (75%), small group facilitation (75%), and precepting (83%) in their current job position (Table 1). When asked how often respondents used the skills/knowledge obtained from the IPTeC program in their current job position, 55% indicated often and 40% indicated occasional use. When asked how much they expected to use IPTeC skills/knowledge in the future, 59% indicated they would likely use them more than they currently did and the other 41% indicated they would likely use them about the same as they currently did.

Table 1. Demographics of Survey Respondents (N = 53)

Variable	No. (%)
Position at time of IPTeC program completion	
Pharmacy practice resident	36 (67.9)
Specialty resident	12 (22.6)
Industry fellow	3 (5.7)
Other	2 (3.8)
Position 1 year from IPTeC program completion, No. (%)	
Community pharmacy – mostly distributive	3 (5.7)
Community/ambulatory care – mostly clinical	5 (9.4)
Hospital pharmacy – mostly distributive	5 (9.4)
Hospital pharmacy – mostly clinical	11 (20.8)
Pharmaceutical industry	6 (11.3)
College/university	4 (7.5)
Specialty residency	14 (26.4)
Fellowship	2 (3.8)
Other	3 (5.7)
Amount of time spent teaching in current position, No. (%)	
<5 hours/week	27 (50.9)
5-10 hours/week	14 (26.4)
11-20 hours/week	9 (17.0)
>20 hours/week	3 (5.7)
No. (%) who teach didactically in current position	40 (75.5)
No. (%) who facilitate small groups in current position	40 (75.5)
No. (%) who precept in current position	44 (83.0)

Abbreviations: IPTeC = Indiana Pharmacy Teaching Certificate

Approximately 47% of respondents either strongly agreed or agreed that completing the IPTeC program helped them obtain their current job position, while the other 53% either strongly disagreed or disagreed. Some specifics regarding the response to this question as grouped by current position is warranted. The majority of respondents (64%) who were employed as clinical hospital pharmacists agreed that completing the program helped them obtain their current position. Specialty residents and faculty members were split. Of the 14 specialty residents, 7 agreed, 4 disagreed, and 3 strongly disagreed that completing the program helped them obtain their current position. Of the 4 faculty members, 1 strongly agreed, 1 agreed, and 2 disagreed that completing the program helped them obtain their current career. All 6 respondents currently working in the pharmaceutical industry at the time of response disagreed that completing the program helped them obtain their current career.

About 80% of respondents would recommend the program to other residents or fellows. Approximately

94% of respondents agreed or strongly agreed with the statement: “If I had to do it all over again, knowing what I know now, I would still complete all the requirements of the IPTeC program.” Perceptions of how helpful each of the components of the IPTeC program were to respondents’ current job positions are summarized in Figure 1.

DISCUSSION

Now in its seventh year, the (IPTeC) program has become an integral component of residency training in the state of Indiana and has recently been expanded to include residency preceptors and new faculty members. Over the last 6 years, the program has grown significantly in size. The number of program graduates from each year are shown in Table 2. There are currently 45 registrants for the 2008-2009 year. The program is now cosponsored by Purdue University School of Pharmacy and Pharmaceutical Sciences and Butler University College of Pharmacy and Health Sciences and is offered to all pharmacy residents, fellows, graduate students, residency preceptors, and new faculty members within the state of Indiana. The significant increase in number of program registrants over the last 2 years is primarily due to the inclusion of newly hired faculty members and residency preceptors who expressed interest in participating in the program. The seminar schedule for the 2008-2009 academic year is shown in Table 3.

This survey represents a high response (85%) of 4 years of perceptions of graduates from a pharmacy resident teaching certificate program. It differs from other published evaluations in that respondents were surveyed approximately 1 year postresidency in order to assess the impact of the program on their current employment. Although respondents were split over whether completing the IPTeC program had helped them obtain their current position, most agreed that the individual components of the program had helped them in their current employment (Figure 1). Respondents felt that the teaching experience gained through the IPTeC program helped most, followed by participation in the seminar series. Only about 55% of

Table 2. Indiana Pharmacy Teaching Certificate Program Graduates by Year

Year	Number of Graduates
2003	11
2004	14
2005	17
2006	20
2007	23
2008	35

Table 3. Indiana Pharmacy Teaching Certificate Seminar Topics for 2008-2009 Academic Year

Topic
Motivating Your Students to Learn
Introduction to Teaching Methodologies
Effective Lecturing Techniques
Preparing Instructional Objectives
Student-Teacher Relationships
Precepting Clerkship Students
Using Discussion in the Learning Process
Evaluating Student Achievement
Power Point – Advanced Techniques
Getting Feedback to Improve Your Teaching / Developing a Teaching Portfolio
Careers in Academia

respondents felt the feedback on the teaching portfolio helped them in their current position, perhaps because only 7.5% of respondents worked in academic settings at the time of the survey (Table 1). Of the 4 who did enter faculty positions, they may not have had a formal teaching evaluation since they would have only been teaching for less than a year at the time of response.

It was reassuring to learn that respondents who were working primarily with clinical responsibilities in a hospital felt that program completion helped them obtain their position since clinical pharmacists often play the role of educator to staff pharmacists and other health care professionals. It also was no surprise that all 6 respondents currently working in pharmaceutical industry did not believe the program helped them obtain their current position since responsibilities in pharmaceutical industry may be less likely to include teaching. Finally, although there were only 4 faculty respondents, it was unexpected that some felt completing the program did not help them obtain their current career. The authors would have presumed that all faculty members would have seen the completion of the program as a significant accomplishment that could have influenced their hiring by colleges of pharmacy.

In a pilot evaluation of the Scholarship of Teaching and Learning Certificate (STLC) program at the University of Kentucky,⁷ which was conducted at the conclusion of the program’s first year, residents completing the program complimented its potential effects on their career and ability to educate. On a scale of 1 to 5 with 1 being “strongly agree” and 5 being “strongly disagree,” 10 residents provided a mean response of 1.9 to the statement “Participation in this program will likely influence my success as a future educator.” Likewise, a mean of 1.9 on the same scale was indicated for the statement “This program will make me a better teacher.” The STLC survey questions were similar to questions asked in the IPTeC program survey; however, the former survey asked respondents to project into the future and the latter survey asked respondents to reflect upon the year that had just passed. Romanelli et al also asked former residency graduates who completed the STLC to reflect on the program’s effect on their teaching confidence.⁷ Whereas the STLC survey asked graduates to reflect on teaching confidence, the current study asked IPTeC graduates to reflect on the perception of whether completing the program helped them obtain their current position and whether individual components of the program were useful to them in their current position. The authors believe these concepts are distinctly different and that the knowledge gained from the current study adds to the information already known about teaching confidence.

Respondents indicated an overall satisfaction with the IPTeC program as noted by their overall willingness to complete the program over again “knowing what they know now” and by their willingness to recommend the program to others. This sentiment was shared by the respondents to the STLC survey, in which respondents strongly agreed that the program should be offered annually to new residents.⁷ In addition, both the University of Kentucky and University of Arizona cite that their residency teaching certificate programs have become successful recruitment tools for would-be residents.^{7,12}

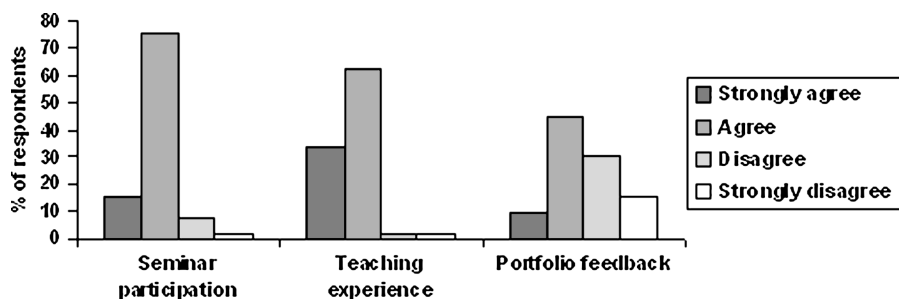


Figure 1. Level of agreement for the statement: “Component X helps me in my current position.” (n = 53)

There are limitations to this survey. First, the survey questions were not validated; however, survey responses were relatively consistent throughout the 4 years in which data were collected. This may suggest sufficient reliability of the questions. The concept of “helping” one in his/her current position was not clearly defined. The authors, however, believe that “help” is something best determined by the respondents themselves and could not be predefined by the authors. Of note, 26.4% of respondents were specialty residents at the time of response. Since specialty residencies are highly structured and unique programs, making valid comparisons between residents’ experiences and those of program graduates who were in other pharmacy career positions at the time of the survey might be difficult. Finally, the survey did not capture employers’ perspectives. Employers are better positioned to answer whether the completion of a pharmacy resident teaching certificate program contributed to hiring of potential candidates than are the program graduates themselves.

SUMMARY

The Indiana Pharmacy Teaching Certificate program requires participants to attend seminars about relevant teaching topics, perform and document teaching experiences over the year and submit a teaching portfolio, which is reviewed by faculty members who provide feedback to participants. For 4 consecutive years (2004-2007), electronic surveys were e-mailed to graduates of the IPTeC program 1 year after program completion. The surveys were intended to assess IPTeC graduates’ perceptions of program completion on their current positions of employment. Fifty-three (85%) of 62 IPTeC graduates responded to the survey. Approximately half of respondents felt that completing the program helped them obtain their current position even though only a small percentage were actually employed as faculty members. In addition, IPTeC graduates felt aspects of the program helped them in their current position and would recommend the program to others coming to Indiana for training. Results of this survey may indicate that a pharmacy resident teaching certificate program can provide valuable skills utilized in practice by program graduates. In addition, these programs may provide important continuing education training opportunities for experiential preceptors and new college faculty members. Future research should focus on employers’ perceptions of residents who have completed teaching certificate programs.

ACKNOWLEDGEMENTS

The authors would like to thank Cynthia Dorsch, PharmD, for her assistance with compiling and organizing data.

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