

Original Research

# Impact of a revised teaching certificate program on pharmacy resident precepting skills

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## Abstract

**Background:** The purpose of this study was to evaluate resident perception of a teaching certificate program (TCP) in preparing them to precept student pharmacists and describe student and preceptor evaluations of resident precepting performance. **Methods:** In summer of 2020, the TCP at the study institution was revised to equally weight training in experiential and didactic education. Pharmacy residents, fourth-year student pharmacists, and preceptors were surveyed before and after implementation of the revised TCP to assess resident precepting skills. The effectiveness of resident precepting was assessed on a Likert scale of 1 (strongly disagree) to 4 (strongly agree). **Results:** After modification, more residents felt that both the TCP and time spent precepting during learning experiences positively contributed to their development as a preceptor (60% vs 100%). Student evaluations of residents demonstrated no significant differences in the proportion who felt their resident preceptor asked questions that were easy to understand or provided actionable feedback (>90% of students agreed). More students strongly agreed that residents' verbal feedback was timely and actionable after implementation of changes to the TCP (74% vs 52% and 61% vs 45%, respectively). Preceptor and resident surveys regarding resident precepting abilities showed minimal change after modification of the TCP. **Conclusion:** More residents found beneficial the information and skills gained in the modified TCP compared with prior to the revisions. While evaluations of resident precepting by students, residents, and preceptors did not change overall, the skill of providing actionable and timely feedback improved after the changes to the TCP.

**Keywords:** pharmacy residencies; pharmacy faculty; pharmacy education; graduate pharmacy education; pharmacy students

## INTRODUCTION

Teaching certificate programs (TCPs) have been utilized for decades to prepare pharmacy residents for careers in academia and to grow their skills in developing and assessing the effectiveness of educational content.<sup>1-4</sup> However, their limited scope and focus on preparation for careers in academia neglects an important need in pharmacy resident education for training as preceptors. In a survey of residency program directors (RPDs), 59% stated that residents finishing their programs frequently or very frequently accepted positions involving teaching or precepting, but 78% of residency programs spent less than 10 hours per month developing residents as preceptors.<sup>5</sup> Therefore, it is important that TCPs address the need to develop pharmacy residents into qualified preceptors as well as academicians.

Teaching Certificate Programs have been shown to be positively associated with pharmacy residents' entering a career in academia, with teaching experience during a pharmacy residency being the most commonly cited influencer to whether or not a resident will apply for a faculty position.<sup>6</sup> Pharmacists who accept a faculty position after residency are

significantly more likely to have given a lecture at a school of pharmacy, medicine, or nursing (81% vs 63%,  $p=0.0074$ ) and to have participated in a problem-based learning or small-group seminar course (75% vs 52%,  $p=0.0016$ ) compared with those who did not participate in such activities.<sup>7</sup> However, other data show that participation in a formal TCP is not significantly associated with acceptance of a faculty position.<sup>7,8</sup> There is a paucity of data supporting the utility of TCPs in preparing pharmacy residents for clinical positions.

A thorough review of published literature revealed limited information regarding the inclusion of preceptor development, clinical rotation design, and other experiential education-based topics within a TCP. In a guidance document articulating what should be included in a TCP, Havrda et al. stated that resident reading assignments and topic discussions should be largely focused in academic topics; the only topic focused on experiential education was "precepting pharmacy students".<sup>9</sup> This same guidance document recommends that residents precept or co-precept an Introductory Pharmacy Practice Experience (IPPE) or Advanced Pharmacy Practice Experience (APPE) student but provides no discussion of precepting tools or skills or recommendations on guidance prior to this experience.<sup>9</sup> Precepting is recommended as part of another TCP;<sup>10</sup> however, there is no discussion of which facets of precepting should be focused on or how much time should be devoted to these topics. Others programs mention that precepting is a requirement of the TCP<sup>11,12</sup> but provide little guidance as to how residents are prepared to precept.

To better prepare residents for precepting roles after completion of their post-graduate training, the resident TCP at the study

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institution transitioned in summer of 2020 from a program focused on academic content to one wherein experiential and didactic education are equally weighted. The purpose of this study is to describe resident perception of the utility of the TCP in preparing them to precept student pharmacists and to describe both student and preceptor evaluations of resident precepting performance prior to and after implementation of this change.

## METHODS

The TCP at the study institution engaged with internal residents and residents from four local institutions both before and after the programmatic revisions. While the study institution is an academic medical center and is affiliated with a school of pharmacy, the other involved institutions have no such affiliation. The TCP is required for Post-Graduate Year 1 Pharmacy residents from the study institution and optional for other Post-Graduate Year 1 residents, Post-Graduate Year 2 residents, and fellows. Participating residents were, and continue to be, expected to complete the following as part of the TCP: (1) present a didactic classroom session to student pharmacists; (2) engage in a longitudinal small group teaching

experience, including development of at least one patient case; (3) write a teaching philosophy statement; (4) develop a teaching portfolio; (5) co-precept at least one APPE or IPPE student, if assigned; and (6) participate in all scheduled sessions and workshops. The majority of sessions and workshops are held in July during the resident orientation with the exception of four longitudinal sessions held in the evenings over the course of the residency year. This program structure remained unchanged for all years of the TCP, despite changes to the content of the TCP sessions.

In July of 2020, the resident TCP was revised to increase time dedicated to didactic and experiential education. The list of sessions and workshops from the summers of 2019, 2020, and 2021 are found in Table 1. In this Institutional Review Board approved study, pharmacy residents, fourth-year student pharmacists, and preceptors were surveyed before and after implementation of this revised TCP to assess the effectiveness of precepting by pharmacy residents. The survey was developed by a group of pharmacy faculty based upon previous literature on the topic.<sup>4,11,13</sup> (Supplemental Material S1-S3) All students, residents, and preceptors surveyed were affiliated with the study institution. Resident precepting skills were assessed on a Likert scale of 1 (strongly disagree) to 4 (strongly agree).

Table 1. Topics for Resident Teaching Certificate Program.

2019	2020	2021
Orientation Sessions		
Didactic Education Sessions		
Factors that Affect Learning	How We Learn and Teaching Philosophies	How We Learn and Teaching Philosophies
Outcome-Centered Teaching	Outcome Driven Education and Developing Learning Objectives	Outcome Driven Education and Developing Learning Objectives
Basic Teaching Methods	Assessing Student Learning	Assessing Student Learning
Active Learning Methods	Facilitating Classroom Learning and Active Learning Methods	Facilitating Classroom Learning and Active Learning Methods
Influencing Student Behavior	Leading a Classroom	Leading a Classroom
Developing a Clinical Case	Case Study Facilitation and Developing a Clinical Case	Case Study Facilitation and Developing a Clinical Case
Experiential Education Sessions		
Precepting Skills	Precepting Skills	Precepting Skills
	Setting Reasonable Expectations	Setting Reasonable Expectations
	Providing Effective Verbal and Written Feedback	Providing Effective Feedback
	Working with Difficult Students	Working with Difficult Students
	Designing a Rotation	Designing a Rotation
Longitudinal Sessions		
Didactic Education Sessions		
Academia as a Career	Academia as a Career	Academia as a Career
Course Design and Syllabus Writing	Course Design and Syllabus Writing	Course Design and Syllabus Writing
Assessing Assessment		
Refining One's Teaching Philosophy and Keys to Excellent Teaching		
Experiential Education Sessions		
	How to Work the Layered Learning Model	How to Work the Layered Learning Model
	Structuring a Rotation to Allow for Student Success	Structuring a Rotation to Allow for Student Success



Surveys were administered in Summer 2020 (April 2020 for students, June 2020 for residents and preceptors), January 2021, Summer 2021 (May 2021 for students, June 2021 for residents and preceptors, and January 2022 utilizing Qualtrics (Qualtrics, 2020, Provo, UT). The Summer 2020 data were prior to the revision of the TCP. All subsequent surveys (January 2021, Summer 2021, and January 2022) were administered after implementation of the revised TCP. The survey questions can be found in Appendices A-C. Descriptive statistics are used to present the data. Cronbach’s alpha was conducted to assess the internal consistency of the survey. Statistical analyses were performed using Microsoft Excel (Microsoft Excel, Microsoft Corporation, 2019).

RESULTS

To simplify, survey responses of “strongly agree” and “somewhat agree” are described in text as “agree” unless there is a need to call out the degree of agreement. Cronbach’s alpha was found to be 0.75, indicating acceptable internal consistency. Of the 50 students who completed the initial survey in Summer 2020 (before TCP revisions were implemented), 31 (62%) were precepted by a resident. All students who were precepted by a resident agreed the resident was well prepared to teach clinical knowledge, professional behavior, and development. All written and verbal feedback provided was actionable and the majority (15/16, 94%) felt that the resident tailored the student’s learning to the appropriate level. Most students (27/29, 93%) reported they worked with a high-quality preceptor at some point in their pharmacy career. In Summer of 2021 (after TCP revisions were implemented), 27 of the 44 students who completed the survey (61%) were precepted by a resident. The majority of students agreed the resident was well prepared to teach clinical knowledge (23/24, 96%) and asked questions that were easy to understand (22/24, 92%), which was largely unchanged from 2020. All students agreed that written and verbal feedback provided was actionable. This was again largely unchanged from 2020, though a greater number

of students strongly agreed that both written and verbal feedback were actionable after implementation of the revised TCP compared with prior to its implementation (50.0% vs 31.0% and 60.9% vs 44.8%, respectively). All students reported they worked with a high-quality preceptor during their pharmacy career. Most students across both cohorts reported spending less than 10 hours per week with residents versus a fairly even split of time spent with preceptors, ranging from less than 10 to more than 40 hours per week. Additional results from the student surveys can be found in Table 2 and Figure 1.

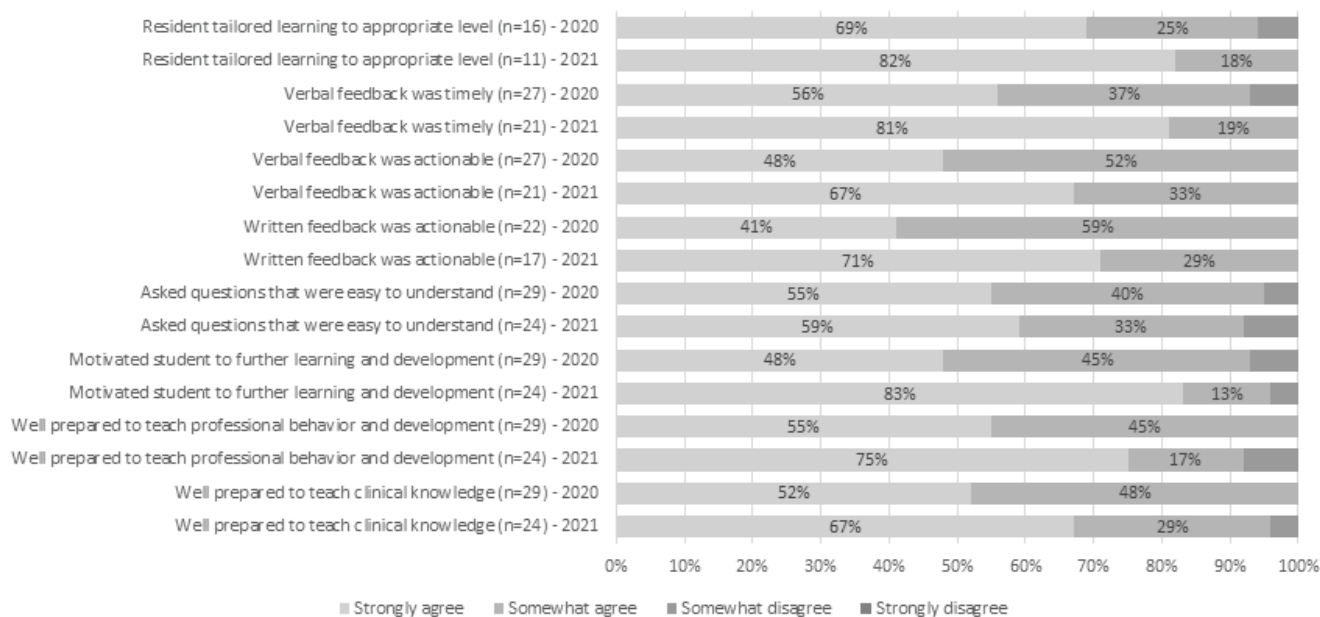
Most residents who completed the survey in Summer 2020 and Summer 2021 precepted a student during their residency (8/9, 89% and 7/7, 100%). The response from the resident who did not precept a student was excluded from further analysis. All residents, before and after TCP revisions, felt well prepared to teach clinical knowledge. While the 2020 cohort agreed they asked questions that were easy to understand (7/7, 100%), the 2021 cohort was less confident in this ability (5/6, 83%). All residents, both before and after TCP revisions, agreed the TCP improved their knowledge of precepting skills and ability to precept students. In 2020, most residents (3/5, 60%) agreed that both the TCP and their learning experiences were helpful in developing their precepting skills, while two residents (40%) stated their learning experiences were more helpful than the TCP. In 2021, all residents felt the TCP and learning experiences were helpful in developing their precepting skills. Reported time spent with students is displayed in Table 2 and results from the resident surveys can be found in Figure 2.

Preceptors surveyed prior to the implementation of the revised TCP had practiced for 3-5 years (2/3, 67%) or more than 12 years (1/3, 33%) and had been precepting a similar amount of time. The preceptors themselves precepted 10-20 hours per week (2/3, 67%) or 21-30 hours per week (1/3, 33%). None of the preceptors provided resources for the resident to help with precepting and two provided training or guidance in precepting, largely feedback on resident performance. After implementation of the revised TCP, responding preceptors were

Table 2. Survey Results of Time Spent with Learners/Preceptors						
	Student survey responses		Resident survey responses		Preceptor survey responses	
	Summer 2020	Summer 2021	Summer 2020	Summer 2021	Summer 2020	Summer 2021
Time with Students/Residents (hours per week)						
<10	11/29 (38%)	10/22 (45%)	0/5 (0%)	0/4 (0%)	0/3 (0%)	1/7 (14%)
10-20	3/29 (10%)	5/22 (23%)	0/5 (0%)	0/4 (0%)	2/3 (67%)	3/7 (43%)
21-30	7/29 (24%)	4/22(18%)	1/5 (20%)	2/4 (50%)	0/3 (0%)	2/7 (29%)
31-40	8/29 (28%)	1/22 (5%)	2/5 (40%)	2/4 (50%)	1/3 (33%)	1/7 (14%)
>40	0/29 (0%)	2/22 (9%)	2/5 (40%)	0/4 (0%)	0/3 (0%)	0/7 (0%)
Time with Preceptors (hours per week)						
<10	8/29 (28%)	6/22 (27%)	0/5 (0%)	0/4 (0%)		
10-20	7/29 (24%)	5/22 (23%)	2/5 (40%)	2/4 (50%)		
21-30	6/29 (21%)	4/22 (18%)	0/5 (0%)	2/4 (50%)		
31-40	8/29 (28%)	4/22 (18%)	3/5 (60%)	0/4 (0%)		
>40	0/29 (0%)	3/22 (14%)	0/5 (0%)	0/4 (0%)		

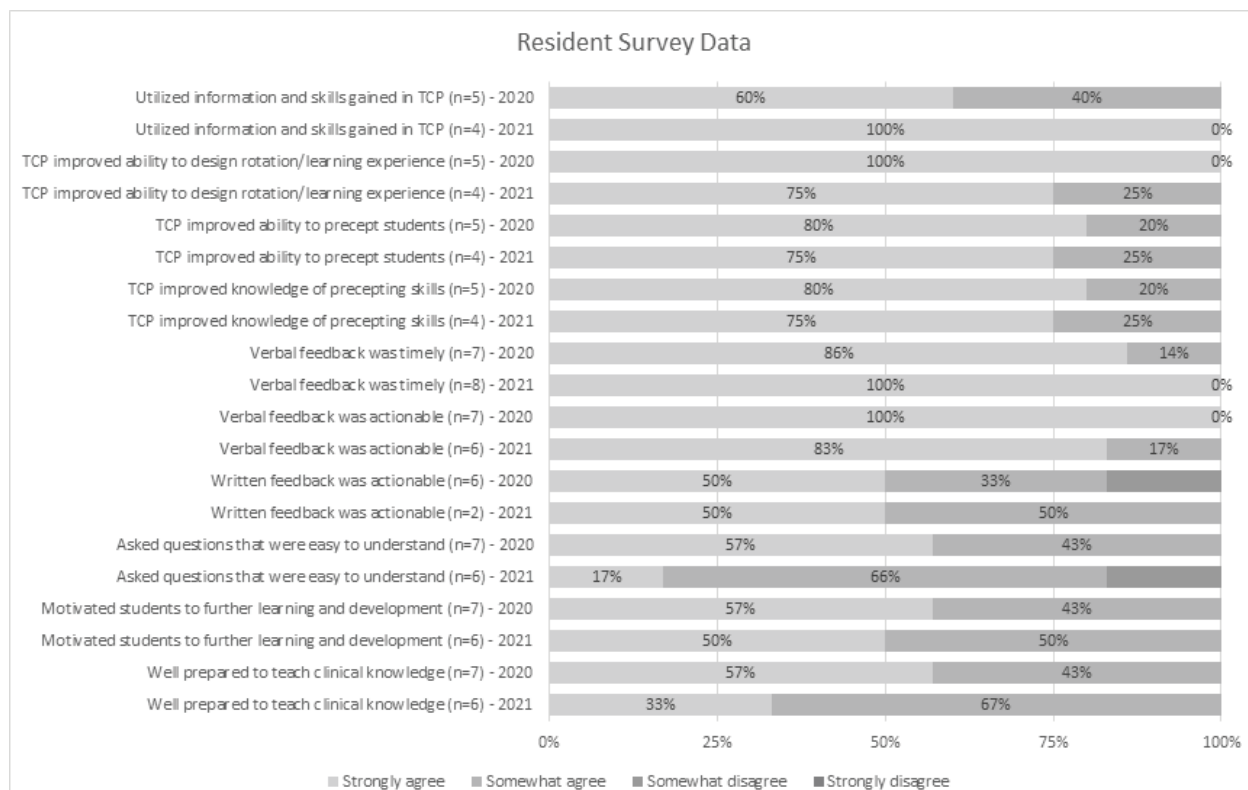


### Student Survey Data



\*zero participants indicated "strongly disagree"

**Figure 1.** Student Survey Data Prior to and after Implementation of the Revised Teaching Certificate Program



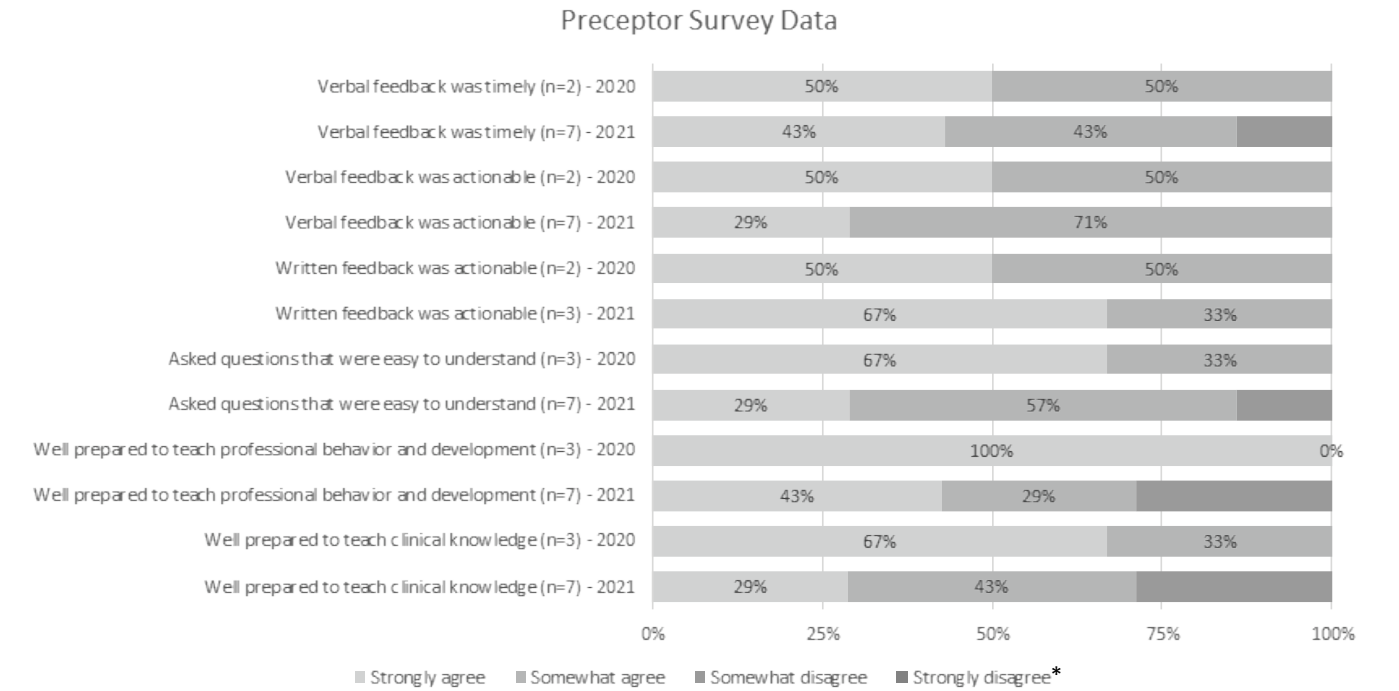
TCP – Teaching Certificate Program

\* zero participants indicated "strongly disagree"

**Figure 2.** Resident Survey Data Prior to and after Implementation of the Revised Teaching Certificate Program

more experienced (3/7 with 6-8 years practicing, 1 with 9-11 years practicing, and 3 with 12 or more years in practice). Most preceptors spent 10-20 hours per week precepting (6/7, 86%), with one (14%) spending 21-30 hours per week. The majority of preceptors provided the residents resources for precepting (4/7, 57%), including literature and continuing education related to preceptor development. Most also provided training and guidance in precepting (5/6, 83%), including daily feedback,

verbal instruction, and behavior modeling. While changes in preceptor responses were minimal, a greater percentage of preceptors somewhat disagreed that residents provided timely verbal feedback (1/7, 14% vs 0.0%) and asked questions that were easy to understand (1/7, 14% vs 0.0%) compared with prior to implementation of the TCP. The overall time spent observing resident precepting is in Table 2 and results of the preceptor survey can be found in Figure 3.



\* zero participants indicated “strongly disagree”

**Figure 3.** Preceptor Survey Data Prior to and after Implementation of the Revised Teaching Certificate Program

**DISCUSSION**

While student, resident, and preceptor perceptions of resident performance as preceptors were generally unchanged, residents felt the skills and abilities they gained from participation in the TCP, in combination with the precepting opportunities during their residency learning experiences, were beneficial to their development as preceptors.

Prior studies have shown that pharmacy resident participation in a TCP has resulted in residents feeling highly confident in their ability to precept pharmacy students and to teach in a one-on-one clerkship setting.<sup>13</sup> This study produced similar results wherein 100% of residents agreed that they felt prepared to precept student pharmacists after participation in the TCP. While the implementation of modifications to focus more on experiential education did not affect this perception, a larger percentage of student pharmacists strongly agreed that written and verbal feedback provided by residents was actionable and timely after the changes to the TCP. This may reflect that the benefits of the TCP may not be fully recognized by the residents but are borne out in student perception of resident skills. One study surveying residents after completion

of a TCP demonstrated that 46% of residents felt a session on precepting and designing a rotation to be “very valuable or useful”;<sup>4</sup> a survey of pharmacy residents years after completion of a TCP showed that 98% of program participants felt that a session “precepting clerkship students” was highly important.<sup>14</sup> It may be that some benefits of this education may take time to be fully realized by the residents. The value of precepting students during residency has been demonstrated by residents who accept faculty positions after completion of residency<sup>7</sup> as well as by those who enter clinical practice.<sup>4</sup> Perhaps a later follow up with residents would indicate larger perceived benefits.

It was observed that, in contrast to most students shifting up to strongly agreeing that residents had strong precepting skills, residents and preceptors shifted down to “somewhat agree” or “somewhat disagree” after the TCP changes. While the survey was anonymous and the data could not be matched, preceptors completing the survey after revision of the TCP may have different precepting expectations and goals for the pharmacy residents. The downward trend for residents may be due to a shift in the expectations of their own precepting skills





after gaining a more in-depth understanding of precepting skills from the TCP. Similarly, in working with more experienced preceptors, the residents may have set more ambitious precepting goals for themselves.

The results of this study suggest that increasing experiential education-based topics within a TCP may not be enough to translate into tangible improvements in preceptorship. This further reinforces the need for preceptor development for pharmacy residents to facilitate appreciable improvements in precepting skills and better prepare them for their potential future roles as preceptors. Other studies have shown that precepting is applicable across settings and that implementing an effective learning experience for students is an essential component of a TCP.<sup>4, 13-16</sup> Communication and providing high-quality verbal feedback are both regarded as important components of a TCP.<sup>17</sup> Other potentially beneficial concepts to include in a TCP are setting expectations in experiential learning and how to handle challenging precepting situations.<sup>18</sup> More work needs to be done to determine the optimal strategy for developing residents as future preceptors and the role that TCPs play in this development.

Limitations of this study include that it was conducted at a single institution and the learner cohorts surveyed varied from year to year, making it difficult to determine if the effects of the TCP changes were due to changes in the student/resident cohorts, preceptors, or the program itself. Also, without an objective way to evaluate resident precepting ability, or a comparison with residents who were not enrolled in our TCP, it is difficult to determine a true change in precepting skills and the sole impact of the TCP. Recall bias may also have influenced the findings of the survey. Additional limiting factors include missing responses in some surveys and limited sample size, which was partially due to the fact that residents external to the study institution did not complete the surveys and residents who had not precepted a student were excluded. In the future, perhaps opportunities for precepting students during resident learning experiences can be factored into scheduling of learning experiences to ensure that all residents engage in at least one precepting experience.

This study shows that residents found increased experiential-based education in the TCP beneficial, but this change in the TCP did not significantly alter student, resident, or preceptor perceptions of resident precepting skills. Moving forward, continued expansion of preceptor development education and consistent use of preceptor development tools such as Habits of Preceptors to evaluate precepting skills may be warranted to produce a more impactful change on resident precepting skills.

## CONCLUSIONS

More residents found the information and skills gained in the modified TCP to be beneficial compared with prior to the revisions. While evaluations of resident precepting by students, residents, and preceptors did not change overall, the skill of providing actionable and timely feedback improved after the changes to the TCP. The positive responses from the student surveys combined with the resident perception of the value of the TCP in developing their precepting skills indicate that this transition was an important step in improving overall resident precepting skills. Additional preceptor development for pharmacy residents will be important in their continued growth as preceptors, and future research is needed to determine how TCPs can best facilitate this growth.

## CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest.

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## AUTHORS CONTRIBUTION

Caroline M. Sierra – conceptualization, data curation, formal analysis, investigation, methodology, visualization, roles/writing – original draft, writing – review and editing. Lisa T. Hong – conceptualization, data curation, formal analysis, investigation, methodology, project administration, visualization, writing – review and editing

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## Student Survey

Q1 Have you been precepted by a resident during your rotations so far this year?

- ☐ Yes  
☐ No

Q2 Please answer the following questions regarding the resident.

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
The resident was well prepared to teach clinical knowledge to students.				
The resident was well-prepared to teach professional behavior and development to students.				
The resident motivated you to further your learning and development.				
The resident asked questions that were easy to understand.				

Q3

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not applicable - did not receive such feedback
The written feedback provided to you by the resident was actionable.					
The verbal feedback provided to you by the resident was actionable.					
The verbal feedback provided to you by the resident was timely.					

Q4 Did you have any other learners at a different level on your rotation?

- ☐ Yes  
☐ No

Q5 Please answer the following question regarding the resident.

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
The resident tailored your learning to be at an appropriate level different from that of the other learners.				



Q6 Current year in pharmacy school

- ☐ PY3
- ☐ PY4

Q7 Blocks in which a resident precepted you

- |                          |         |
|--------------------------|---------|
| <input type="checkbox"/> | Block 0 |
| <input type="checkbox"/> | Block 1 |
| <input type="checkbox"/> | Block 2 |
| <input type="checkbox"/> | Block 3 |
| <input type="checkbox"/> | Block 4 |
| <input type="checkbox"/> | Block 5 |
| <input type="checkbox"/> | Block 6 |
| <input type="checkbox"/> | Block 7 |
| <input type="checkbox"/> | Block 8 |

Q8 How much time per week did you spend with your resident(s)?

- ☐ 0-10 hours
- ☐ 11-20 hours
- ☐ 21-30 hours
- ☐ 31-40 hours
- ☐ More than 40 hours

Q9 How much time per week did you spend with your preceptor(s)?

- ☐ 0-10 hours
- ☐ 11-20 hours
- ☐ 21-30 hours
- ☐ 31-40 hours
- ☐ More than 40 hours

Q10 In your opinion, have you had a high-quality preceptor at some point in your training?

- ☐ Yes
- ☐ No

Resident Survey

Q1 Did you precept students during your learning experiences this year?

- ☐ Yes
- ☐ No

Q2 Please answer the following questions regarding precepting students.

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
I felt well-prepared to teach clinical knowledge to students.				
I felt well-prepared to teach professional behavior and development to students.				
I felt I was motivating to the students in their learning and development.				
I asked questions that were easy to understand.				

Q3

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not applicable - did not provide such feedback
I provided actionable written feedback.					
I provided actionable verbal feedback.					
I provided timely verbal feedback.					

Q4 Did you precept learners of varying years of pharmacy school/post-graduate training?

- ☐ Yes
- ☐ No

Q5 Did you tailor your training to be at an appropriate level for each of the learners?

- ☐ Yes
- ☐ No

Q6 Please answer the following questions regarding the Teaching Certificate Program.

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
The Teaching Certificate Program improved my knowledge of precepting skills and responsibilities.				
The Teaching Certificate Program improved my ability to precept students.				
The Teaching Certificate Program improved my ability to design a rotation/learning experience for a student/ resident.				
I utilized the information and skills gained in the Teaching Certificate Program while precepting learners.				

Q7 Which do you feel was more helpful in improving your precepting skills?

- ☐ Teaching Certificate Program
- ☐ Learning Experiences during residency
- ☐ Both were equally important
- ☐ Neither was helpful in this capacity

Q8 What areas within the Teaching Certificate Program do you wish we spent more time discussing?

Q9 What areas were not covered in the Teaching Certificate Program that you would have found beneficial?



Q10 What year of post-graduate training are you in?

- ☐ PGY1
- ☐ PGY2
- ☐ Fellow Year 1
- ☐ Fellow Year 2

Q11 During which block(s) of the past year did you precept a learner?

- ☐ Block 1
- ☐ Block 2
- ☐ Block 3
- ☐ Block 4
- ☐ Block 5
- ☐ Block 6
- ☐ Block 7
- ☐ Block 8

Q12 How much time per week did you spend with your student(s)?

- ☐ 0-10 hours
- ☐ 11-20 hours
- ☐ 21-30 hours
- ☐ 31-40 hours
- ☐ More than 40 hours

Q13 How much time per week did you spend with your preceptor?

- ☐ 0-10 hours
- ☐ 11-20 hours
- ☐ 21-30 hours
- ☐ 31-40 hours
- ☐ More than 40 hours

Q14 In your opinion, have you had a high-quality preceptor at some point during your training?

- ☐ Yes
- ☐ No

Preceptor Survey

Q1 Did you precept a resident and a student simultaneously this year?

- ☐ Yes (1)
- ☐ No (2)

Q2 Please answer the following question regarding the resident.

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree
The resident was well-prepared to teach clinical knowledge to students.				
The resident was well-prepared to teach professional behavior and development to students.				
The resident motivated the students to further their learning and development.				
The resident asked questions that were easy to understand.				

Q3

	Strongly agree	Somewhat agree	S o m e w h a t disagree	Strongly disagree	Not applicable - no such feedback was provided
The written feedback provided by the resident was actionable.					
The verbal feedback provided by the resident was actionable.					
The verbal feedback provided by the resident was timely.					

Q4 Did the resident precept learners of varying years of pharmacy school/post-graduate training?

- ☐ Yes
- ☐ No

Q5 Did the resident tailor training to be at an appropriate level for each of the learners?

- ☐ Yes
- ☐ No

Q6 How many years have you been a practicing pharmacist?

- ☐ 0-2
- ☐ 3-5
- ☐ 6-8
- ☐ 9-11
- ☐ 12 or more

Q7 How many years have you been a preceptor?

- ☐ 0-2
- ☐ 3-5
- ☐ 6-8
- ☐ 9-11
- ☐ 12 or more

Q8 During which blocks in the past year did you precept both a resident and a student simultaneously?

- ☐ Block 0
- ☐ Block 1
- ☐ Block 2
- ☐ Block 3
- ☐ Block 4
- ☐ Block 5
- ☐ Block 6
- ☐ Block 7
- ☐ Block 8



Q9 Did you tailor your training to be at an appropriate level for each of the learners?

- ☐ Yes
- ☐ No

Q10 How many hours per week did your resident observe you precept?

- ☐ 0-10 hours
- ☐ 11-20 hours
- ☐ 21-30 hours
- ☐ 31-40 hours
- ☐ More than 40 hours

Q11 How many hours per week did your resident spend precepting?

- ☐ 0-10 hours
- ☐ 11-20 hours
- ☐ 21-30 hours
- ☐ 31-40 hours
- ☐ More than 40 hours

Q12 Did you provide resources to help your resident be a successful preceptor?

- ☐ Yes
- ☐ No

Q13 What resources did you provide?

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Q14 Did you provide training or guidance to help your resident be a successful preceptor?

- ☐ Yes
- ☐ No

Q15 What training or guidance did you provide?

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