

Program Administrators' Perceived Challenges Associated With Developing Preceptors

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Context: Understanding potential barriers that prevent program administrators from providing high-quality preceptor development opportunities will help inform strategies of preceptor development.

Objective: To explore the challenges program administrators encounter when developing preceptors for graduate, professional athletic training programs.

Design: Consensual qualitative research.

Setting: Individual semistructured phone interviews.

Patients or Other Participants: Eighteen program administrators (17 coordinators of clinical education, 1 program director; 5.92 ± 4.19 years of experience) participated in this study. Data saturation guided the number of participants.

Data Collection and Analysis: Semistructured interviews were recorded and transcribed verbatim. A 4-person research team used a consensus process to analyze data and identify emergent themes. A consensual codebook was created after researchers independently coded the data and discussed emergent themes. Credibility of the findings was established through multiple researchers, an external auditor, and member checks.

Results: Two themes emerged, delivery and content. How to deliver development posed a challenge, with work schedules and geographical spread inhibiting the ability to schedule one in-person group meeting. Lastly, participants struggled to balance their own workloads to overcome the challenges of curating and delivering multiple preceptor development opportunities in addition to their existing academic obligations. Identifying which content to include that was relevant and useful to a variety of preceptors regardless of setting or experience was also a challenge for our participants. Participants felt that some preceptors were reticent to learn about program policies, accreditation requirements, or newly included clinical skills, making large-group development opportunities more challenging.

Conclusions: Administrators may need multiple preceptor development options to accommodate the varying levels of experience, desired content, and geographical locations of preceptors; however, this subsequently increases workload challenges. Educating institutional administrators about the demands of developing preceptors may open dialogue regarding workload and provision of necessary resources associated with preceptor development.

Key Words: Preceptor development, clinical teaching, clinical education

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KEY POINTS

- Establishing high-quality preceptors who can foster learning during clinical experiences is essential; however, program administrators may experience a myriad of challenges associated with preceptor development.
- Administrators should consider providing clear expectations when onboarding preceptors related to preceptors' commitment to their ongoing development as educators, which may alleviate some of the stress associated with fostering preceptor buy-in.
- Using technology (eg, videoconferencing, recorded presentations) comprehensively may help to overcome logistic barriers related to the delivery of preceptor development, especially when geographical and scheduling challenges arise.
- Educating institutional administrators on the importance of and demands associated with developing preceptors may help open dialogue regarding workload strains and resources necessary to establish a high-quality network of preceptors.

INTRODUCTION

In 2012, the Commission on Accreditation of Athletic Training Education (CAATE) released the *Standards for the Accreditation of Professional Athletic Training Programs*.¹ These revised standards removed uniform training for preceptors and required that program administrators develop and deliver their own regular and ongoing development for preceptors. In May 2015 it was announced that all athletic training programs should occur at the graduate level,² and that graduate programs would require immersive clinical experiences along with other clinical education requirements.³ These planned changes may have far-reaching implications for program administrators tasked with developing a curriculum appropriate for graduate students as well as building immersive clinical rotations that meet the goals and objectives of the program.

Recent and ongoing reform in athletic training education has created a renewed need to examine preceptor development. As programs transition from a baccalaureate to a professional master's level, program administrators will face a new demographic of students, and clinical education may look much different than it does at the baccalaureate level. Preceptors provide valuable mentoring and education to athletic training students during their professional preparation, but also require mentorship, ongoing education, and development to serve in this role.⁴ Past research has demonstrated that learning needs of preceptors are not necessarily dependent on experience, practice setting, or past educational experience.⁵ However, preceptors have identified a need to learn more about critical thinking, clinical decision-making, determining autonomous readiness, and understanding the process of evaluating students.⁵

In pharmacy education, a multifaceted preceptor development program was well received by preceptors and resulted in improved student evaluations of preceptors over a 5-year period.⁶ Components of this program included live and remote workshops, local and regional events, individual site visits, and a published policy and procedure manual. This type of development requires extensive planning and effort to deliver, and program administrators may incur a variety of challenges in attempting to deliver such quality preceptor development. However, these challenges have not been investigated within graduate athletic training education. Understanding potential barriers that prevent program administrators from providing high-quality preceptor development opportunities will help develop future strategies and initiatives that enhance the development of preceptors. This may be especially helpful as programs begin to transition to the master's level. Therefore, the purpose of this study was to explore the challenges program administrators (ie, program directors, coordinators of clinical education) encounter when developing preceptors for graduate, professional athletic training programs.

METHODS

Design

A consensual qualitative research (CQR) design was used for this study. This approach to qualitative inquiry was described by Hill et al^{7,8} as a detailed process requiring multiple researchers to examine data, discuss them, and agree on their meaning to reduce researcher bias. Researchers using a CQR design collectively look for common themes in participants' described experiences and discuss with each other before reaching a consensus on the meaning of the data. Using a team of researchers and auditors, the process of a CQR design limits researcher bias so the emergent themes most accurately represent participants' experiences.

This study used a 4-person research team, which consisted of the primary investigator (J.L.R.H.) and 3 other researchers (J.M.C., D.A.H., S.E.W.) with varying levels of experience with qualitative research. One member of this core research team also served as the internal auditor,^{7,8} who verified interpretations made by the research team. One additional athletic trainer (AT) with experience in qualitative research and a thorough understanding of CQR served as an external auditor (C.E.W.B.) who confirmed final themes and categories. We consulted the Standards for Reporting Qualitative Research⁹ to ensure the highest quality design and reporting of qualitative research.

Participant and Participant Recruitment

A full description of recruitment procedures has been previously detailed.¹⁰ Before initiating this study, researchers received institutional review board approval, and written

Table. Preceptor Development Theme Frequency Counts (n = 18)

Category	Frequency	No. of Participants
Technology	Variant	3
Logistics	Variant	5
Workload	Variant	4
Relevance	Variant	3
Preceptors' resistance	Variant	5

informed consent was given by each participant before any data were collected. All graduate, professional athletic training programs were identified using the CAATE's website (www.caate.net) in August 2016. After removing those programs not listed as active in good standing, we identified the program director and coordinator of clinical education for each remaining program (n = 46) using each institution's website. Everyone identified in this search was then contacted via email by the primary investigator (J.L.R.H.). The recruitment email detailed the purpose of the study and asked the administrator primarily responsible for preceptor development to respond to the primary investigator if they wished to participate. Data saturation as described by Hill et al^{7,8} guided the number of interviews conducted.

Eighteen program administrators (11 women, 7 men) who were primarily responsible for developing preceptors for a graduate, professional athletic training program participated in this study. To be eligible, participants must have served in a graduate-level, professional athletic training program whose status with the CAATE was active and in good standing at the time of data collection. Of the 18 participants, 17 reported they served as director or coordinator of clinical education and 1 as program director. Of the programs that participated, the director or coordinator of clinical education was responsible for the preparation and delivery of preceptor development 94% of the time, but on one occasion this individual was the program director; thus, participants will be referred to as either participants or program administrators throughout this manuscript. The average amount of experience in their respective roles was 5.92 ± 4.19 years. Further demographics related to each participant and their respective intuitions have been previously described.¹⁰

Data Collection Procedures

To streamline the process of confirming inclusion criteria, obtaining written consent, and collecting demographic information from each participant, we gathered this information before each interview via an electronic questionnaire using the Qualtrics survey platform (Qualtrics LLC).¹⁰ The primary investigator (J.L.R.H.) conducted all interviews using a semistructured interview guide.^{7,8} This unique protocol included 13 open-ended questions included in a previous study (see Table 3 in Rager et al¹⁰), which addressed the research questions of this study. Content validity for the demographic questionnaire and interview guide was established by sending these items to 3 independent ATs with extensive experience in clinical education and qualitative methods. The demographic questionnaire and interview guide were piloted with 2 ATs who were responsible for preceptor development at their institutions. Only minor (eg, wording, grammatical) modifications were made to either instrument

after this process. The data obtained during the pilot interviews were not used in the data analysis portion of the study. Pseudonyms were used for each participant to protect their identity. All interviews were conducted over the phone, and each interview was audio recorded and transcribed verbatim by a professional transcriptionist. Member checks were conducted to verify the accuracy of the transcription process. A more detailed description of these procedures can be found in our corresponding study.¹⁰

Data Analysis and Trustworthiness

The CQR process, as described by Hill et al,^{7,8} guided data analysis for this study. The 4-person research team analyzed data. Each member of the research team independently read the same 3 randomly selected transcripts and identified common themes in the data. These emergent themes were discussed until a consensus was reached, and a codebook was created. The research team then independently recoded 1 transcript and 2 new additional transcripts and discussed their finding to assess the accuracy of this codebook. A final consensus codebook was created after this discussion and modifications were complete. Once the codebook was finalized, the primary investigator (J.L.R.H.) coded all remaining transcripts using the consensus codebook. The research team then cross-analyzed a random selection of the coded transcripts to verify that they were coded correctly. Continual appraisal by the internal auditor helped ensure reliability of data analysis. Once this process was complete, the external auditor reviewed coded transcripts and confirmed final themes. The frequency counts for each theme were divided into 4 categories based on Hill et al^{7,8}: (1) general, (2) typical, (3) variant, and (4) rare. For this study, a category was considered *general* if it applied to 17 or more participants, *typical* if it applied to 9 to 16 participants, *variant* if it applied to 3 to 9 participants, and *rare* if it related to fewer than 3 participants. The frequency counts for each subtheme associated with the themes identified in this study are outlined in the Table. The data analysis procedures for this study were described in more depth in an earlier publication.¹⁰ The data collection and analysis process is depicted in Figure 1.

Trustworthiness was established through narrative-accuracy member checks, investigator triangulation, and internal and external audits. To ensure clarity of the data and allow participants to review their transcripts, narrative-accuracy member checks were conducted. The CQR approach uses a research team to consider multiple perspectives to reach a consensus and triangulate the findings.^{7,8} Finally, to further establish rigor and trustworthiness of the data, we also used a process of internal and external audits.

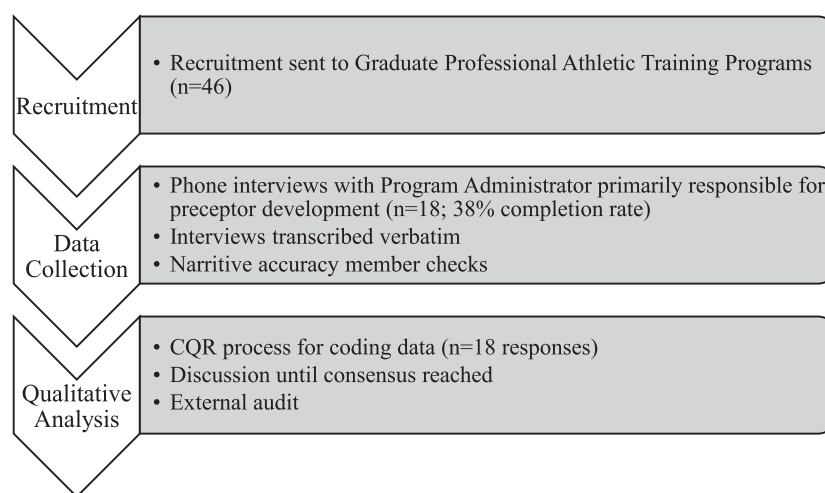
RESULTS

Two themes emerged from the data that described participants perceived challenges associated with preceptor development: (1) delivery and (2) content. These themes, along with the corresponding subthemes, are displayed in Figure 2.

Delivery

Participants discussed the challenges they have faced while delivering preceptor development. This theme contained 3 subthemes: (1) logistics, (2) technology, and (3) workload.

Figure 1. Research method flow diagram. Program administrators from 18 programs responded.



Logistics. Participants discussed how the logistic aspects of in-person meetings and workshops were barriers to delivering preceptor development. Factors such as geographic location and busy work schedules made it difficult for participants to decide how or when to deliver ongoing preceptor development opportunities. For some, like Richard, meeting with preceptors in person, whether individually or in groups, was difficult because preceptors were not always in close geographic proximity to the program. He stated,

Being in the Midwest, we have preceptors on the East Coast, so we are not able to interact with them any other way other than electronically. We use several types of virtual interfaces, but it is unrealistic for us to be able to do anything in person.

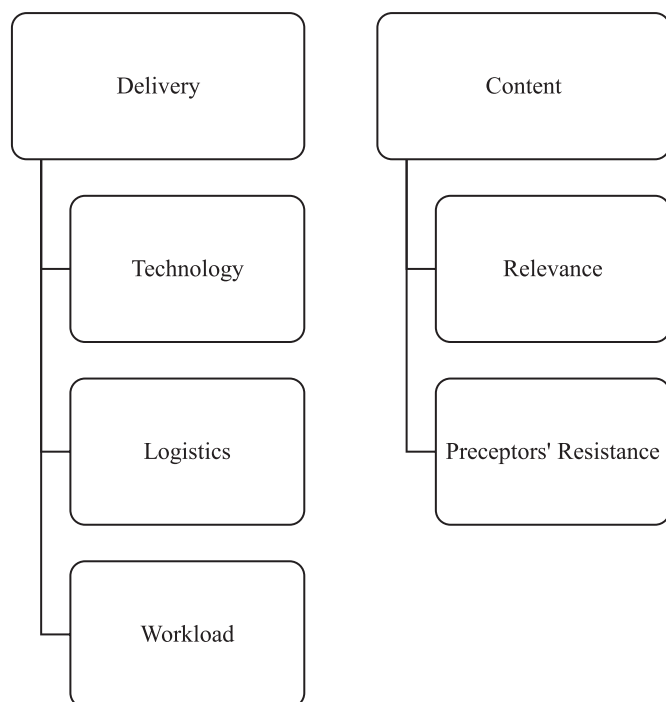
For Gary, the logistic aspects of determining how and when to deliver in-person group workshops were the most challenging. He pointed out,

The most difficult thing I face is trying to coordinate standard times to have preceptors meet as a group. We have preceptors anywhere from 2 miles away to 45 miles away and in a variety of practice settings. It is hard to coordinate mutual times that most preceptors are available.

Like Gary, Alice has worked to accommodate preceptors' schedules, but this continues to be difficult for her as she must meet with preceptors on an individual basis because of their lack of availability. She reported:

When we did our first on-site [preceptor] training, we had to offer 3 sessions to accommodate their schedules, and we still did not get every preceptor there. So, we had several individual sessions where I went out and met with preceptors who could not attend that year. We found that it is quite the task to get everyone on campus, to find times that worked for all preceptors.

Figure 2. Emergent themes and subthemes.



During his interview, Barry expressed a desire for preceptors to meet via in-person group workshops. However, preceptors' busy work schedules were a primary barrier to accomplishing that. He asserted:

I hear all of the time from preceptors, "I cannot meet then because I have practice, or I have fall ball, or I have summer conditioning, and if I take a day off to do this [attend a preceptor development workshop], I have to take a personal day from work." Everyone is way overbooked nowadays. It is not just preceptors; it is everyone. I cannot find time to get everyone in a room together. No matter how much I want to.

Several factors have been a source of resistance to delivering ongoing preceptor development opportunities for participants. Learning about new technology and creating these opportunities using that technology has challenged both participants who are familiar with these platforms and those who are not. Furthermore, the geographic locations of preceptors and their limited availability have been obstacles

to using in-person formats to develop preceptors for their role as clinical teachers.

Technology. Emerging technologies (eg, videoconferencing, online learning systems) have provided new opportunities to deliver preceptor development in creative and innovative ways. Participants, however, discussed how taking the time to learn about platforms they were not familiar with and establish virtual programming had been a barrier to delivering preceptor development opportunities. Barry, for example, was apprehensive about the idea of delivering preceptor development using technology because of the energy it would take to create these learning opportunities using an online platform. He stated,

I can do it [preceptor development] by scraping and getting preceptors together virtually, but that is such a technological nightmare, I cannot even begin to tell you how much I do not even want to think about doing that.

Other participants, like Russell, had had some, albeit glitchy, experience with virtual meetings. He shared:

It is a matter of making sure it works right consistently, for everyone. When I get a [virtual] meeting link, the setup for each meeting is a bit different every time. It seems like something always goes wrong at the very last minute. That is the issue I have with technology. If we could use the same thing [platform] every time, that would be great.

Susan discussed how she had tried using the website where preceptors approve students' clinical experience hours to share small bits of advice about clinical teaching on a weekly basis for ongoing preceptor development. Although she mentioned her familiarity with using technology, the work she had done to use these platforms had not always gone smoothly. She explained:

We developed a preceptor tip of the week. I would post the content weekly on the main page of the website our students use to log their [clinical experience] hours. So, every week, I would post a new tip to keep things fresh for our preceptors. I later found out the platform we were using gives preceptors a direct link to approve students' hours, and they were never directed to the main page. When I checked in with preceptors halfway into the semester and asked them, "Do you like this? Is it helpful?" no one had any idea the information was there. So, that was a failed attempt.

Whether they had experience with it or not, learning new technology was a barrier participants experienced when delivering preceptor development. The amount of time and energy that goes into learning new online platforms such as videoconferencing and online learning systems and creating programming using these platforms challenged participants.

Workload. Participants also shared how delivering preceptor development was made difficult because of their current workload. Although participants valued this part of their role, there was no additional release time provided. Therefore, finding adequate time to plan and develop content for preceptors with varying experience levels, interests, and learning needs was taxing. Additionally, some preceptor development, because of scheduling difficulties, occurred individually, which further increased the workload

strain for participants. For Barry, whose position load is nontenure track at a doctoral university with high research activity (R2), the work he did to plan and execute preceptor development was not factored into how he is evaluated. He commented:

I can put 40 hours in and do the best darn preceptor training modules in the world, and we could have the best preceptors in the world, but it is not reflected anywhere in my workload. It is not factored into my promotion and tenure document. It has nothing to do with my institutional service record.

Later, during his interview, Barry added how there were no other programs within his academic unit that had to align with specialty accreditation, which had led to a lack of understanding of his role. He said:

We are the only professional program in my entire school. So, they do not understand accreditation. They do not understand preceptorships. They do not understand what I have to do and why I have to do it. So, when your colleagues do not get it, it is hard to say, "This is why I am spending 12 hours on these videos."

Mona, who also reported her position load as nontenure track at an R2 institution, discussed how she too found it difficult to manage her workload because she was given very little time to plan and execute preceptor development. She stated:

In addition to my teaching load and scholarship requirements, I am given a 10% release time for clinical education. . . . So, my work as coordinator of clinical education is currently seen as service to the institution and it is not as highly valued with regard to my promotion and tenure.

Because of the workload demands she faced, Alice, who worked in a nontenure track line at an R1 doctoral university with very high research activity, wished for additional support to plan and execute preceptor development. She mentioned:

I wish there were 3 more of me to tackle our 50-plus preceptors. . . . I think the ratio of preceptors and coordinators of clinical education is tough. We have 50-plus preceptors and only 1 coordinator of clinical education. I know it is unheard of to have multiple coordinators of clinical education, but that would be helpful.

The number of times preceptor development must be delivered increased the workload strains for participants, making it more difficult for them to plan, organize, and execute preceptor development. Emma, a participant who worked in a tenure-track position at a baccalaureate college, discussed how she often had to deliver preceptor development opportunities individually because of difficulties scheduling preceptors to attend a large-group workshop. This need to deliver preceptor development to individual preceptors separately added to the workload strain she reported. Emma stated,

The meeting time, getting everyone to meet at the same time has been a really big challenge. But I do not want to have to meet with everyone individually. That is very time-consuming for me to get everyone [preceptors] on the same page.

Content

The theme of content refers to the challenges participants faced when deciding which content to include during preceptor development opportunities. This theme consists of 2 subthemes: (1) relevance and (2) preceptors' resistance.

Relevance. Presenting content that was relevant and effective for a variety of preceptors from different employment settings and varying experience levels was reported as a challenge for participants. Depending on the therapeutic equipment a preceptor had in their clinic or perhaps how often a preceptor clinically taught made it challenging to decide on the appropriate content for preceptor development. Russell discussed how it was hard for him to include information about modality calibration when he was meeting with a group of preceptors and knew some of them might not even have that equipment in their clinics. He stated,

Not every preceptor has modalities. So, when you go through preceptor development, and you are talking about calibration records of all the modalities, if a preceptor does not have those modalities, that seems like a waste of their time. It is information that is not super useful to them.

Joey, like Russell, also struggled with deciding on content that would be relevant for all preceptors. He said:

The preceptors we use frequently, I do not feel like we burden them by doing site visits and talking with them. But the ones [preceptors] who do not have students that often, I feel like we are burdening them because we hold them to the same standard as preceptors who have students more frequently.

The varying experience levels and employment settings preceptors work within has made it difficult for participants to select content that will be relevant to all preceptors. Furthermore, participants discussed how it could be challenging to choose content that would be perceived as valuable for preceptors who clinically teach at varying frequencies.

Preceptors' Resistance. Participants reported that not all preceptors were interested in engaging in preceptor development and learning new information. Participants commented on how preceptors generally viewed preceptor development as a necessary evil and had been resistant to participating in it altogether. Participants discussed how preceptors had been unwilling to learn about pedagogical concepts and adopt new policies standardized by accreditation. When talking about his experiences with preceptor development, David expressed how some preceptors serving in his program viewed students as a workforce and engaging in preceptor development as a requirement of having access to students. He explained:

Some of our preceptors view preceptor development as a necessary evil so they can have students available to them. But they know they must sit through the training to have that perk and have students around. Therefore, it is not a priority for them. So, getting them to engage in discussions and activities can be a challenge during preceptor development meetings.

Other participants mentioned how preceptors had resisted learning about pedagogical concepts such as teaching and learning theories. Barry disclosed:

I am trying to teach them [preceptors] more teaching theory, but our preceptors tell me, "I am 100% clinical. I do not care about pedagogy, even though I really like it." It has been hard to get them [preceptors] on board with learning about that content. . . Preceptors sometimes tell me, "Well, this is how I learned it. Students should be able to learn like this too." So, when I try to tell them, "You might want to try a different approach," or "What you are doing may not be very effective," they can get very defensive.

Preceptors' willingness to learn information about programmatic changes stimulated by accreditation standards (eg, new clinical skills added to the curriculum, change in professional degree level, immersive clinical experiences) had also been a barrier for participants. During their interviews, both Susan and Judy reported how it had been challenging for them to help preceptors understand accreditation standards during preceptor development. Susan stated:

It is difficult to get preceptors to buy into the education changes. There have been several changes that have happened with how clinical education is delivered, and expectations of preceptors. I feel like I am always going to the preceptors and telling them, "Okay, now we have to do this, or this is a new standard we need to address." That has been the biggest challenge I have faced is getting preceptors to buy in to all the changes.

Judy mentioned how preceptors' lack of identity as educators seemed to be a barrier for their acceptance of the adjustments to accreditation standards. She reported:

They [preceptors] do not view themselves as educators even though they are. That can make things difficult sometimes when we [the program] have to implement changes coming from [accreditation] standards. As it [the changes] rolls down to the program, I need to disperse that information to the preceptors, and they do not always agree. But there are things we have to do because of CAATE. So, we have to rally the troops sometimes to help them understand why we need those changes to be implemented.

Participants reported being challenged by preceptors' resistance to learning new information. Preceptors' disengagement with the content being discussed during preceptor development opportunities has been a barrier for participants. At times, participants discussed how preceptors' lack of identity as educators contributed to their resistance to engaging in these professional development opportunities altogether or perhaps the struggle to help them accept programmatic changes being driven by accreditation. Furthermore, preceptors' disinterest in learning about pedagogical concepts contributed to the challenges participants faced implementing preceptor development.

DISCUSSION

Developing a large network of high-quality preceptors is essential to foster clinical education experiences for students. However, program administrators may encounter challenges along the way. The findings identified here highlight common barriers experienced by program administrators when developing preceptors, including the use of technology, logistic factors, workload restraints, and identifying content that is

both relevant and meaningful to all preceptors. These results provide stakeholders important information that may guide the difficult decisions associated with how and when to deliver preceptor development programming, the process of creating and modifying preceptor development resources, and choosing what content to include.

We identified 2 factors that made the delivery of preceptor development challenging: the delivery of content and what content to include in development. Both online^{10–16} and in-person^{17–19} and multimodal¹⁹ methods of delivering preceptor development are widely described in the literature as highly useful formats of delivering content. However, no studies to date appear to have compared whether one delivery approach is more effective than the other. Athletic training programs have continued to use formal, in-person workshops or meetings to prepare preceptors for their role as clinical teachers.¹⁰ Our data were collected before the COVID-19 pandemic. At the time of data collection, coursework was in person, and as a result, educators were likely more comfortable delivering preceptor development in person. Future studies should examine current modes of preceptor delivery and their effectiveness.

Meeting with preceptors in person has been suggested to reinforce preceptors' value to the health care program they serve.¹¹ Nevertheless, the results of this study and others^{13,15} help us understand the logistic challenges associated with scheduling in-person meetings and preceptor development workshops. Our study revealed how the geographic location and preceptors' busy work schedules make it difficult for administrators to decide how or when to deliver consistent and ongoing preceptor development. Preceptors and program administrators in nursing¹⁵ and medicine¹³ have reported these strains, suggesting this is not a challenge isolated to athletic training.

To alleviate these constraints, several authors^{10,13,15,20} across health care professions have called for the use of online programming to develop preceptors' clinical teaching abilities. Online educational opportunities have expanded tremendously with the development of videoconferencing (eg, Zoom, GoToMeeting, FaceTime, WhatsApp) and the evolving capabilities of learning management systems like Blackboard, Canvas, and Moodle. Not only has technology been discussed to alleviate the stressors associated with delivering preceptor development content in person,^{10,11,13,15} studies have revealed that online modes of delivery are highly rewarding and effective at improving the clinical teaching abilities of preceptors, as well as strengthening their confidence in their own clinical skills.^{14,16} Technology has undoubtedly become a crucial resource for education, although to use it effectively requires extensive time and planning. Our study revealed just how challenging it can be for administrators to create and implement preceptor development opportunities. However, technology has also been identified as a hindrance in developing and delivering education, which is attributed to lack of knowledge and training of the user.²¹ Inadequate support from information technology personnel can be a foundational barrier to creating online educational opportunities for preceptors. Therefore, it may be necessary for athletic training program administrators to consult with information technology and other instructional technology personnel to investigate the

available resources and help ensure adequate support before incorporating online learning opportunities into preceptor development. It is possible that educators have grown more comfortable using online platforms to deliver educational content because of circumstances surrounding the COVID-19 pandemic.

Program administrators also reported workload constraints as a primary barrier to delivering preceptor development. This challenge was directly related to the faculty workload requirements within their academic unit and a lack of or insufficient release time allocated to plan, organize, or execute preceptor development. The faculty members who oversee clinical education are responsible for a myriad of tasks such as identifying potential clinical sites, evaluating these sites as well as preceptors, ensuring student compliance (eg, immunizations, background checks), initiating site agreements, assessing student learning and programmatic outcomes, mediating conflict, mentoring students and preceptors, and creating and executing preceptor development opportunities. Still, the expectations to complete these tasks while maintaining a course load, advising students, participating in service obligations, and conducting scholarly endeavors may be disproportionate. No studies to date appear to have examined the workload of athletic training faculty; however, institutions within an academic pharmacy consortium have reported full-time equivalents dedicated to the administration of the program ranged from 0.5 to 0.3.²² No discussion was offered as to the adequacy of this time, though, and authors noted this time was usually redirected toward efforts that ensured student matriculation (eg, recruiting). In athletic training, the 2018–2019 CAATE analytic report²³ indicated that the coordinators of clinical education averaged about one-fourth (25%) workload release, which is lower than identified in the pharmacy study, although coordinators of clinical education at master's degree programs have trended slightly higher, with an average around 28% release time. Similar reports in physical therapy education indicated a 35% workload release for directors of clinical education.²⁴ Furthermore, CAATE²³ reported a 10-month appointment for coordinators of clinical education, which may affect their ability to plan and deliver preceptor development within their contracted work period given that preceptor development may need to occur over the summer to accommodate preceptors' schedules.

There has been discussion for the need for directors or coordinators of clinical education to have adequate time to develop meaningful preceptor development programs.¹³ Similarly, literature in nursing has highlighted how program administrators overseeing clinical education are frequently overwhelmed because of limited resources, inadequate staff support, and their strained workload.²⁵ Developing an effective, multimodal preceptor development program is a time-intensive and demanding charge. One institution noted needing upwards of 270 hours to build its preceptor development program, exceeding expectations.¹² However, it should be noted that this time did not include what was needed to administer the preceptor development program once it was created. Given this information, it is not surprising that administrators participating in our study reported how difficult it was to deliver preceptor development in part because of their workload. Interestingly, the challenges of

workload and delivery modes intersect, in that the need to create and implement preceptor development, and in some cases to deliver it individually, adds to faculty workload. To help lessen this strain, administrators can integrate institutional leadership in these efforts, which may increase their understanding of the full picture, thus garnering more support from these critical stakeholders.²²

Collaborating with other programs and support personnel may also help to alleviate the workload strains associated with preceptor development. Previously, athletic training program administrators have reported irregularly collaborating with other health care programs to develop preceptors because of an absence of other programs or a lack of a relationship with them.¹⁰ Authors in medicine²⁶ and pharmacy^{6,22,27} have discussed how collaborating with faculty from programs both inside and outside of their institution have helped to decrease costs as well as streamline the processes and initiatives associated with clinical education (eg, standard evaluation instruments, coordinated preceptor development activities). Furthermore, the addition of immersive clinical experiences may increase the collaborative opportunities of programs, as athletic training preceptors may be affiliated with multiple programs. Support staff (ie, administrative assistants, information technology specialists, instructional technologists) may also be able to help alleviate challenges experienced with delivering preceptor development²¹ and should be consulted to investigate how they can support these efforts.

When discussing their experiences with preceptor development, administrators reported difficulties associated with choosing content relevant to all preceptors because of the variability in preceptors' practice settings or their frequency of clinical teaching. Studies across health care professions have previously revealed that the content most frequently incorporated in preceptor development opportunities included information to orient the preceptor to the program and their role (eg, policies and procedures, academic curriculum, preceptor expectations),^{10,11,16,18,26,28} material related to clinical teaching (eg, giving feedback, delegation, teaching and learning theories, managing conflict, communication),^{10,28–32} and new clinical skills and knowledge (eg, evidence-based practice principles, patient-centered care, collaborative practice, informatics, quality improvement, and intravenous drug administration).^{10,33} However, this content differs from the preferences of preceptors, who have been reported to value topics related solely to clinical teaching. For example, athletic training preceptors have previously discussed their wishes for guidance in teaching critical thinking and decision-making.⁵ Preceptors for pharmacy³⁴ and medical¹² programs have similarly reported preferring subjects such as resolving conflict, effectively questioning and motivating learners, and teaching communication. Given this, it may come as no surprise that administrators from this study discussed their perceptions of preceptors seeming uninterested in content focused on program information (eg, program policies and procedures, new accreditation standards).

When designing preceptor development opportunities, administrators should consider the learning needs of the audience. No single theory has wholly encompassed the complex process that shapes how adults learn best; however, many of the adult learning theories discussed in the literature

are grounded in Knowles's³⁵ principles of andragogy. Knowles's theory includes 4 guiding principles of how adults learn. First, because of their self-directedness, adults should be involved in the development of the content and process of their learning. Second, adult learning should focus on drawing from the learner's past experiences and building upon them. Third, the material included for adult learners should focus on issues related to their work or personal life. Finally, the fourth principle of andragogy suggests learning should center on problem-solving rather than memorization.

Preceptors are health care professionals who have graduated from a professional program and earned the appropriate credential to practice in their respective professions. Therefore, it is safe to assume preceptors are adult learners who have past experiences in their field, are self-driven, value learning that integrates with their everyday life, and are internally motivated. This theory helps to conceptualize how previous experiences caring for patients and teaching students help to shape the learning preferences of preceptors. Furthermore, the deeper self-concept of adult learners described by Knowles³⁵ directs their learning needs. Therefore, further examination of the learning needs and preferences of preceptors and tailoring preceptor development opportunities to these aspects may lead to preceptors being more committed to engaging in preceptor development.

Limitations and Future Research

There are several inherent limitations to this study that should be recognized. First, participation was intentionally limited to program administrators for graduate, professional athletic training programs. The exclusion of certain groups, such as administrators for undergraduate programs and for postprofessional athletic training programs, means that comparisons cannot be drawn between these groups. Furthermore, we acknowledge limitations related to the frequency of responses within each category of results. The number of responses that supported each category were relatively low. We attributed this spread in responses to the individual nature of preceptor development and the differences in program culture, vision, and values. This low frequency, however, may limit the transferability of these results. Finally, we set out to recruit a diverse set of participants with a wide range of professional experience. We acknowledge that although each participant met inclusion criteria, a considerable number of participants (27%, $n = 5$) reported 2 or fewer years of experience administering preceptor development. This factor was not examined explicitly within our study; however, we note it may have influenced the findings. Future research should investigate effective educational techniques to disseminate preceptor development as well as how program administrators are evaluated and how faculty load requirements affect their administrative responsibilities. Finally, future studies should investigate what stakeholders view as ideal components of preceptor development programs and the influences on these beliefs.

CONCLUSIONS

Different levels of experience and educational needs of preceptors may make it difficult to determine what content to include, especially as clinical experiences become more diverse and individualized. Administrators should consider

providing clear expectations when onboarding preceptors related to their commitment to ongoing development as educators, which may alleviate some of the stress associated with fostering preceptor buy-in. Administrators may need to offer multiple preceptor development options to accommodate the varying levels of experience, desired content, and geographical locations of preceptors; however, this would subsequently increase the workload challenge. Therefore, partnering with instructional technology experts to use resources (eg, web-based modules, videoconferencing, recorded presentations) more comprehensively may help to overcome logistic barriers of delivering preceptor development opportunities, especially when geographical and scheduling challenges arise. Furthermore, educating institutional administrators about the importance and demands of developing preceptors may open dialogue regarding their workload and the necessary resources associated with preceptor development.

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