Clinical Education Coordinators' Selection and Deselection Criteria of Clinical Education Experiences

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Context: Athletic training students have identified clinical education as the most important aspect of their education when transitioning to practice. However, athletic training students have been frustrated with a lack of engagement, mentorship, and diversity within their clinical education experiences. As such, the selection and deselection of clinical sites is critical to creating effective learning experiences.

Objective: To explore how clinical education coordinators (CECs) select and deselect clinical education experiences (sites and preceptors) for clinical integration and immersion.

Design: Consensual qualitative research.

Setting: Individual teleconference interviews.

Patients or Other Participants: Thirteen CECs (age = 42 ± 8 years, experience in current role = 8 ± 8 years) from accredited professional master's programs who were in their position for at least 1 year and had at least 1 immersive rotation.

Data Collection and Analysis: All interviews were audio recorded and transcribed. A 3-person data analysis team used a multiphase process to identify the emerging domains and categories. Trustworthiness was established through member checking, multiple researcher triangulation, and auditing.

Results: Two themes emerged from the participant responses: accreditation compliance and strategic choices. We found participants expressed the theme of accreditation compliance as a major facilitator when selecting or deselecting clinical education placements. Strategic choices, such as student aspirations and focus on the quantity over the quality, were used by CECs to select clinical education placements which develop student autonomy and provide diverse experiences. However, the CECs engaged in convenient preceptor selection based on geographical location and previous relationships.

Conclusion(s): Our findings suggest CECs leverage convenient clinical education opportunities that comply with accreditation expectations. CECs should be strategically selecting clinical education opportunities that move beyond accreditation minimum standards and focus on high-quality experiential learning, which leads to autonomous practice and embraces the diversity of the profession.

Key Words: Autonomous practice, mentorship, transition to practice

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KEY POINTS

- Clinical education placements and preceptors, both integrative and immersive, need to foster a relationship with athletic training students to aid in transition to professional practice.
- Clinical education placements and preceptors play an integral role in retention within the profession and need to enrich learning and growth for athletic training students to transition to practice.
- Clinical education coordinators seek to have clinical education placements that create an autonomous clinician but that also appeal to athletic training students' career aspirations.
- To maintain retention within the program, clinical education coordinators need to find clinical education placements that facilitate growth and mentorship but also appeal to current and prospective athletic training students.

INTRODUCTION

The role of clinical education in health care education programs is to provide students with experiences that cannot be replicated in the classroom.[1] Clinical education provides students with hands-on learning experiences that are needed before autonomously practicing in the health care field.[1] It is well known within the profession of athletic training that clinical education plays an important role in the development of practice-ready clinicians.[2–4] Two models of clinical education exist: *clinical integration* and *clinical immersion*. The clinical integration model is described as students engaging in didactic education and completing clinical education experiences[5] which allows the student to complete course work during the day followed by a clinical experience. It has been thought that clinical education should be experienced at or close to the same time as relevant course work to allow the student to apply newly learned skills[6]; while this model allows the student to immediately practice new skills learned in the classroom, it may inhibit the student from seeing the totality of athletic training. The immersive model is intended to provide exposure to the totality of the profession.[7]

The Commission on Accreditation of Athletic Training Education (CAATE) defined the construct of clinical immersion as a practice-based intensive experience that allows the student to encounter all aspects of athletic training in a day-to-day and week-to-week experience.[7] Clinical immersion is an experience designed to engage and enable graduates to seamlessly transition to practice.[4,8] While the clinical immersive model is newer to athletic training, some might suggest its roots exist within the internship model from which the profession was founded. Furthermore, clinical immersion is not new within health care education. Physical therapy, nursing, and physician assistant studies have already integrated immersion into their professional education programs.[9]

Within these different professional programs, the immersive experiences vary in style and setting, but all have 1 goal, which is to aid students in transitioning to professional practice and to assess the knowledge transfer from classroom to clinical practice.[9] For the profession of athletic training, clinical immersion allows athletic training students to experience most, if not all, aspects of athletic training which include administrative duties, collaborative meetings, and interprofessional consultations.[4] Many athletic training programs use a balanced approach of clinical integration and clinical immersion to assure the student is provided with well-rounded experiences.

Clinical education provides athletic training students with realistic experiences that help with retention within the professional program,[2] retention within the profession, and allow students to visualize themselves as certified athletic trainers making clinical decisions on their own.[2,10] During these clinical education experiences, athletic training students learn under preceptors whose role is to supervise, instruct, and mentor.[7] Preceptors play an integral role in assuring that students are obtaining the skills and experiences necessary to transition to practice. Athletic training students perceive that 59% of their professional education is attributed to their clinical experiences; however, students remain frustrated while at clinical sites.[11] Much of this frustration stems from the lack of engagement from preceptors, the monotony of clinical sites, and the lack of mentorship from preceptors.[11] In recent studies, athletic training students report learning the best under preceptors who demonstrate commitment to the profession, act as mentors to students, and encourage students to have a higher level of thinking.[3,10,12,13] Preceptors within athletic training not only take on the role as clinical teacher but also of mentor. Engaging with their preceptors and seeing their preceptors as mentors has shown to have a positive effect on how students practice postprofessionally and aids with retention within the profession.[10,13,14] Since athletic training students perceive high attribution to time spent in clinical experiences, it is imperative that clinical preceptors and sites provide students with positive experiences that challenge and engage students at a higher level of learning.

Clinical education is thought to provide the day-to-day experiences and duties of athletic trainers,[4] which is why it is imperative that students are learning under preceptors that respect, mentor, and instruct in a way that facilitates growth and learning. There has been significant research in other health care education programs on the integration of immersive clinical models, in all of which researchers showed significant improvements in knowledge transference and the students' ability to transition to practice.[4] The purpose of this study was to explore how clinical education coordinators (CECs) select or deselect clinical education sites and preceptors for the program and whether these practices change between the integrated and immersive clinical experiences within their programs.

Table 1. Roles and Experience of the Research Team

| | Team Member | | | | |
	J.E.B.	E.R.N.	Z.J.D.	S.E.W.	L.E.E.
Role	Principal investigator; data analysis team member	Data analysis team member	Auditor	Research team member	Data analysis team member
Research experience	Novice qualitative researcher	Competent qualitative researcher with extensive experience in various forms of qualitative research	Competent qualitative researcher with extensive experience in various forms of qualitative research	Expert qualitative team researcher with extensive experience in various forms of qualitative research	Expert qualitative researcher with experience in auditing and various forms of qualitative research

METHODS

Design

In this study, we used a consensual qualitative research (CQR) approach because of the need for complex and robust analysis[15,16] of how CECs of professional athletic training master's programs select and deselect clinical education placements and preceptors for both clinical integration and clinical immersive experiences. Since the process of CQR is so complex, multiple researchers are needed for the research team.[15] The research team for this study consisted of 5 athletic trainers (J.E.B., E.R.N., Z.J.D., S.E.W., L.E.E.) with multiple levels of CQR experience, which is illustrated in Table 1. This project was deemed exempt by the Indiana State University Institutional Review Board before data collection. We used the Standards for Reporting Qualitative Research to guide the design and reporting of this project.[17]

Participants

Participants served as CECs for a professional master's athletic training program. To be included in the study, the CECs must have been in the position for longer than 1 year, and the program had to have used an immersive clinical site more than once. The specific inclusion criteria assured the current CEC was the person making the decision to select or deselect clinical education sites and that the sites had been used more than once to ensure the CEC had an opportunity for deselection if necessary. The criteria for having had an immersive clinical experience allowed the CEC to compare both integrative and immersive clinical experiences. Any programs that were currently transitioning their degree from bachelor's to master's or were currently seeking new accreditation were not eligible for the study, nor were CECs who were new to their positions. Programs that were unable to fulfill the use of a clinical immersive site for a second time due to the COVID-19 pandemic were also excluded from the study. CECs are tasked with the oversight of clinical education which includes student placement, site evaluation, preceptor evaluation, communication and education of preceptors, and preceptor selection,[7] which is why they were the targeted participants, instead of program directors. We recruited the CEC for each professional master's program (n = 152) via email with an invitation to participate in the study. All email addresses for the CEC were obtained through publicly available information from their respective institution's Website. The initial email, with consent document and invitation to participate included, was sent at approximately 9:00 AM EDT on Tuesday mornings during the months of April and May 2020, with a follow-up email sent 2 weeks after the initial email.

Participants that indicated they were eligible via the confidential online signup form and wanted to contribute to the study were contacted by the primary investigator (J.E.B.) for the interview. For any type of CQR, it is recommended that 10 to 15 interviews be conducted to meet data saturation.[15,16] A total of 13 interviews were conducted, at which time the research team agreed that saturation was met for the study.

The participants consisted of 6 females and 7 males (age = 42 ± 8 years) with 8 ± 8 years as CECs at their current institutions, 9 ± 6 years as program administrators total, and 18 ± 7 years of certified clinical experience. Table 2 lists the demographics for the participants.

Instrumentation

As there is a lack of research and evidence on the topic, the team used the purpose of the study to develop the semistructured interview script of 12 questions which can be found in Table 3. The semistructured approach allows for the primary investigator (J.E.B.) to ask probing questions and clarification on responses from the participant.

The interview script was developed by the primary investigator and 2 other members of the research team (J.E.B., E.R.N., L.E.E.) and then internally validated by 2 other members of the team (Z.J.D., S.E.W.). The research team has experience in athletic training education, clinical education coordination, and qualitative inquiry. The script was externally reviewed by 2 experts, both with program administration and qualitative research experience (years of experience = 9 ± 1). Minor changes were made to the sequencing of questions, and some suggestions were made to how the questions were asked. No changes were made to the overall intent of each question. The principal investigator pilot tested the interview script 3 times with individuals who met the inclusion criteria, but their responses were not included in the analysis. No changes were made to the script after the practice interviews.

Table 2. Participant Demographics

Pseudonym	Age, y	Clinical Education Coordinator, y	Program Administrator, y	Certified Clinical Experience, y
Nicole	45	3	3	20
Vinny	34	5	5	12
Jenny	36	3	6	11
Samantha	54	8	20	22
Paul	42	13	13	20
Mike	55	30	10	32
Ronald	48	9	16	25
Deena	45	3	12	21
Angelina	34	3	3	12
Danny	44	13	13	22
Angelo	32	2	2	10
Chris	32	2	4	10
Lauren	43	11	11	21

Data Collection Procedures

The interviews were conducted through teleconferencing software (Zoom, zoom.us) and audio recorded. Each interview lasted on average 33 ± 11 minutes, and the recording and transcript were saved directly to secure Cloud storage with multifactor authentication. The transcript was deidentified of name, institution, geographic location, and other identifying markers and checked for accuracy by the primary investigator.

Data Analysis and Trustworthiness

The deidentified transcript was sent via secure email to each participant to check for accuracy. Sending each participant their transcript allowed for them to verify their responses and clarify anything that they believed may have been misconstrued. One participant indicated a response was inaccurate and clarified, while all others indicated transcripts were accurate and no changes were needed.

Three members of the data analysis team (J.E.B., E.R.N., L.E.E.) began the data analysis process by reviewing 3 transcripts using an inductive approach. Table 1 lists the characteristics and level of experience of the research team. The process of CQR uses multiple reviewers to reduce researcher bias and to gain multiple perspectives. Each member of the research team read each transcript independently and developed a domain list that accurately reflected

Table 3. Semistructured Interview Script

(1) As a clinical education coordinator, describe your clinical education philosophy.
    (a) How does immersion fit into your clinical education philosophy, if at all?
(2) Describe how you coordinate clinical education placements. For instance, how do you plan the length of the rotation, or how you ensure placements address the CAATE standards for patient populations?
    (a) How is this applied to traditional placements?
    (b) How is this applied to immersive placements?
(3) How does your clinical education philosophy inform how you coordinate clinical education placements?
(4) Describe your overall perception of the importance of traditional clinical education placements.
(5) Describe your overall perception of the importance of immersive clinical education placements.
(6) What, if any, selection criteria do you or your program use for selecting traditional clinical placements?
    (a) Describe the assessment tools you use to evaluate preceptors and sites.
(7) What, if any, selection criteria do you use for selecting immersive clinical placements?
    (a) Describe the assessment tools you use to evaluate preceptors and sites.
(8) Among these factors, what is the most important factor that goes into selecting a clinical placement? Is that different between traditional and immersive clinical placements? Why or why not?
(9) Do you think there should there be a difference between selection of immersive placements and traditional placements? Describe why or why not.
(10) How do you determine if a preceptor should be used again for a clinical placement?
    (a) Is this the same for traditional and immersive clinical placements? Why or why not?
(11) Have you ever had to discontinue using a preceptor or site as a clinical placement? Why?
    (a) Was it a traditional or immersive clinical placement?
        (i) Did the type of placement influence the decision making? Why or why not?
    (b) If not, what is the process for deselecting and removing a preceptor or site?
    (c) Does your institution have a policy or criteria in place for preceptor deselection?
(12) Is there anything else you would like to share about your experiences and thoughts regarding traditional and immersive clinical education?

Abbreviation: CAATE, Commission on Accreditation of Athletic Training Education.

Table 4. Frequency Counts

Domains and Categories	Counts	CQR Assigned Value
Accreditation compliant		
Deferring to the standards	12/13	Typical
Stakeholder feedback	12/13	Typical
Programmatic policy	12/13	Typical
Strategic choices		
Convenient preceptor selection	10/13	Typical
Quantity over quality	10/13	Typical
Effective preceptor selection or retention	10/13	Typical
Autonomous practice	13/13	General
Student aspirations	10/13	Typical
Diverse experiences	9/13	Typical
Deselection for harmful experiences	8/13	Typical
Curricular structure	12/13	Typical

Abbreviation: CQR, consensual qualitative research.

the data.[15,16] The team then met to create and confirm the first codebook. Next the codebook was applied to 2 new transcripts and 2 previously coded transcripts. The data analysis team met to revisit the codebook, make changes, and finalize the consensus codebook. The codebook was then applied to the remaining transcripts, from which each of the members coded 4 or 5 transcripts. The final coded transcripts were confirmed by 1 other member, any differing opinions were discussed, and a majority vote (2 of 3) was taken to reach a consensus of the code.[15,16] After all previous steps were completed, the transcripts, codebook, and coded transcripts were shared with 1 auditor (Z.J.D.) for validity. The auditor agreed that the codebook was an accurate representation of the data derived from the research. We constructed a cross-analysis of the data to confirm all core ideas were placed in the accurate domains and categories. The data ensured trustworthiness using participant member checking, multiple researchers, and external auditing.[15,16]

The final stage of data analysis was to check for frequency within each of the interviews, which can be seen in Table 4. Categories for data analysis were assigned based on frequency and classified as *general* if identified in 13 or more cases, *typical* if identified in 6 to 12 cases, *variant* if identified in 3 to 5 cases, and *rare* if identified in 2 or less cases.[15,16] The method for this study is reflected in Figure 1.

RESULTS

Two major domains emerged from the responses: *accreditation compliant* and *strategic choices*. The first domain that emerged described how the participants and their respective programs were accreditation compliant with the CAATE standards when selecting clinical education sites. The second domain that emerged from the responses was strategic choices, which describe how the CECs indicated intentionality when selecting or deselecting clinical education sites or preceptors. Although participants indicated they engaged in intentional selections, we observed some of the criteria to be convenient. A strong emphasis on the student's career aspirations was present, while also assuring the student completed an adequate number of hours in his or her clinical education experience. Figure 2 depicts the domains and categories that emerged from the responses.
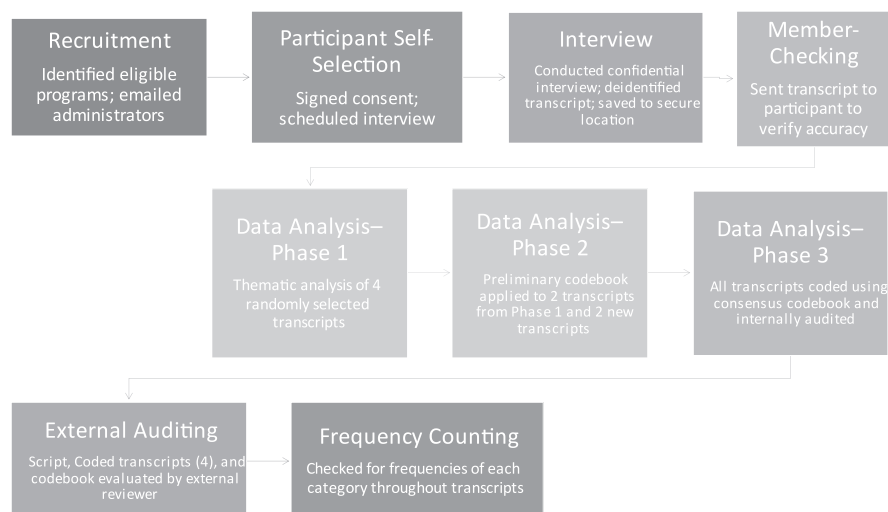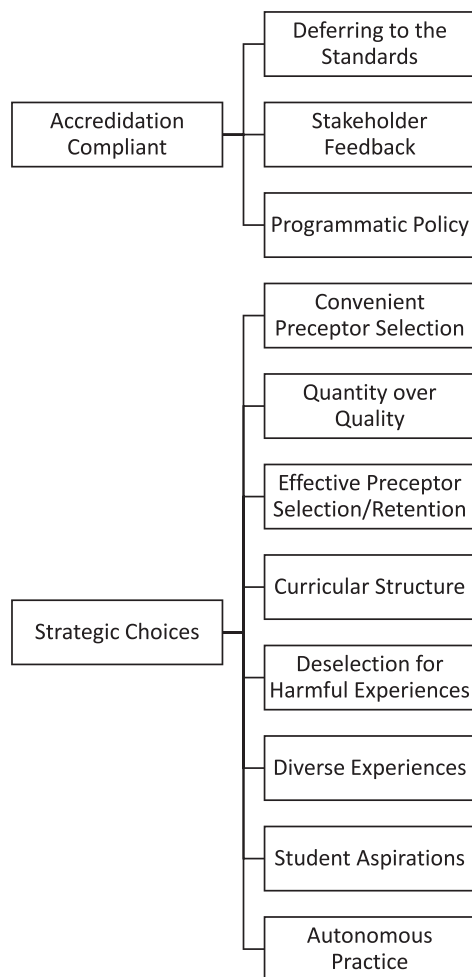
Figure 1. Methods flow chart.

Figure 2. Domains and categories.

Accreditation Compliant

The domain accreditation compliant comprised reasons why CECs selected or deselected clinical education experiences, which included preceptors and sites, as they relate to the CAATE standards, for example, assuring all preceptors were credentialed, assuring the sites had safety checks such as modality calibration, and assuring the students were gaining experience with various patient populations. This domain also addresses *stakeholder feedback*, meaning CECs regarded reviews and suggestions from students, preceptors, faculty members, and others when selecting or deselecting a clinical education experience.

Deferring to the Standards. For the *deferring to the standards* category, participants specifically discussed how the CAATE standards are met during clinical education experiences. Many participants specifically referred to the CAATE standard of various types of patient populations. One participant specifically stated he wanted all students to obtain a general medical rotation, assuring the various types of patient populations were met during each rotation. Vinny explained this process:

> Everybody in our program gets a general medical rotation over the summer. From there, we knock down the other populations that I have to meet, whether it be a younger population or older population. That's how I'm going to put

them at either a traditional or nontraditional site throughout the rest of the program.

Similar to the previous response, some participants assured that students were not only exposed to different patient populations but also different equipment-intensive sports and higher risk clinical education placements. Michael explained:

> We provide them with the exposure to everything that accreditation requires as far as the types of experiences and also the program requirements that we have in terms of the type of experiences that we want to provide to students, so we can say the students got that exposure to over the lifespan and the different genders and different risks, equipment-related type settings or sports or assignments. . .

Stakeholder Feedback. The stakeholder feedback category refers to how the participants used feedback from program stakeholders (students, preceptors, other athletic trainers, colleagues, etc) to either select or deselect preceptors and sites; however, that was not the only purpose of the feedback. Lauren discussed how feedback from the students was used to help the preceptor improve on their teaching and mentoring skills:

> I believe in what we've seen in the data is that it makes a difference to the students and the preceptor on his or her ability to teach. The preceptor evaluations that come back that talk about teaching and/or the preceptor's ability to teach those that have more experience generally will score higher. I think it's because they're more comfortable with their skills and they're not worried about the process of athletic training, they have more time to teach as they're completing the process.

Many participants mentioned how midsemester and end of semester evaluations were required and considered when retaining a preceptor or site, especially if the student's safety was at risk. Samantha stated how she used student feedback to properly address any types of issues or disagreements a student had with a preceptor:

> So it's something that we would engage; I would listen to the students. We would bring the student and the preceptor together, depending on what the situation was. If it wasn't something that I needed to take the student away from harm's way immediately, then that would be something that would be my judgment call, and then along with the program director, we would filter in with the faculty within our department as well.

Meanwhile, Michael commented on how having very open communication with preceptors and their willingness to clinically teach is crucial to selecting and retaining preceptors:

> The other factor is just the feedback that we get in communicating with the preceptor when we get direct communication that they say they don't want to be a preceptor or that they don't enjoy it. They don't need students. They don't want to have students.

Programmatic Policy. The last category that emerged *programmatic policy* refers to types of policies and procedures, or lack thereof, programs have in place for deselecting a preceptor. Preceptors were deselected for multiple reasons

such as harmful experiences, unprofessional behavior, and/or poor teaching strategies or tactics.

Within the responses, it was a common response that programs did not have a set policy, and many programs used the preceptor handbook as a guide for deselecting preceptors. Chris mentioned violations of the handbook:

> We do have a preceptor handbook that we get to our preceptors for when we train a preceptor, and we interview the preceptor. So if they were in violation of any of the guidelines, that would definitely be grounds for discontinuing preceptorship.

Some participants discussed how the process of deselection is a case-by-case basis and has been an informal policy that has been developed over the years. For example, Michael mentioned:

> I don't know if we have a standard. It's not a specific written policy and procedures, just one of the things that was developed many years ago, and we keep continuing it. It is not a formal plan but more unwritten plan that we all have in our heads.

Strategic Choices

The domain strategic choices emerged from the data when participants responded with ways they selected or deselected clinical placements intentionally, for example, when participants mentioned how many of their sites were chosen based on geographical location (ie, the university athletic training facility) or previous relationships. Some participants also mentioned how there was a lengthy process when selecting, for example, assuring the preceptor was willing to teach and mentor the students.

Convenient Preceptor Selection. Many programs have *convenient preceptor selection* (geographical location, previous relationships, former students) when choosing clinical preceptors, meaning there is no formal criteria for selecting preceptors beyond meeting accreditation guidelines. Nicole mentioned the immersive clinical experiences are the same sites and preceptors that are used for the integrative experiences, just for a longer period:

> We have the university athletic medical rehabilitation department, local universities, high schools, and sports medicine clinic, but rather than a student being in that setting with classes and clinical integrated fashion, we just assign 2 of the 3 immersive experiences that they're assigned to 1 of those sites, to a preceptor [at] 1 of those sites, but they're just doing it immersive for 8 weeks.

Jenni mentioned how her program does not have selection criteria and uses the same preceptors from the previous years and undergraduate program. However, she does go on to mention that she uses the preceptors who have excelled in their position based on feedback:

> We don't necessarily have a list of selection criteria. We had an undergraduate program here for a really long time, and so when I came in, a lot of relationships were already developed with clinical sites and with [a] certain preceptor. We're building as we're going here, so that was nice, but we don't necessarily have a selection criterion; we just kind of have

options that we've used in the past that have worked well in the past.

Michael went on to say he also uses previous relationships; however, instead of established preceptors, he and his program use former students as clinical preceptors:

> I think, for the most part, where we've been developing clinical site agreements with people that we are familiar with either as former students of ours and that are out practicing now or colleagues, and so that's kind of been how we've been developing those immersive external experiences.

Quantity Over Quality. Programs often place a preset number of hours students must obtain before graduating based on a credit hour load. Many programs have placed a strong emphasis on the *quantity of hours over the quality* of hours, with the expectation and realization that the quantity of hours also creates a quality clinical education placement. For example, Samantha said:

> So clinical 2 would be anywhere between 180 to 200 hours that we are expecting, but we do understand that quality and quantity are not the same. Most of our students go beyond their means, but it also depends on the semester, and we ask for anywhere between 2 to 4 days a week depending on the semester. Again, most individuals are 3 to 4 days a week, sometimes 5. We require at least 2 weekends of the month.

Similarly, Nicole said students typically exceed the hour expectation because of the quality of the clinical education experience:

> By the time they graduate, they need 750 hours, which is nothing. Our students will get easily double that without being required to because they like it that much.

When it comes to the quantity of hours, CECs want to assure that students understand the demand the profession can have on clinical practice. Chris said:

> Because at least here at our university, the athletic trainers are really pushed a lot when it comes to hours and coverage, seems like they live at the facility. So even though they think that college [is] so awesome, I want to make sure that they actually know everything they're getting themselves into before they actually start applying to a collegiate position.

Effective Preceptor Retention and Selection. Professional socialization in the athletic training profession is especially important for young professionals. Socialization can be eased with proper guidance and mentorship from practicing clinicians which may come in the form of previous preceptors; thus, it is important for CECs to *select and retain preceptors* that are motivated to teach and mentor students. Ronald stated this:

> I think, if you have a motivated preceptor, that is the most important piece, as they give back to the student because they realize that our students are paying credit and classes and then certain field experience, they are actually paying for these kinds of experiences. I said there has to be a lot of value and intentionality with regards to those placements. Sometimes I think the value comes from the experience the student will get at the same time. I think some of that value comes from just the mentorship and the professional preparation.

Effective preceptorship comes in many forms, which not only includes mentorship but also creating a healthy environment for the student to grow and learn. Sophia stated:

> We must progressively develop appropriate autonomy, the types of cases that they can handle, and exposures have to be there and the person's ability to serve as a mentor.

Preceptors have different strengths and weaknesses with their teaching style. Some preceptors may be better at teaching a certain concept or experience the student has within the program. For example, Angelina stated:

> I always keep notes in those evaluations of the students. I know who's going to help to teach the younger students more, and I know who's going to challenge the older students more.

Autonomous Practice. Participants described that, for clinical education experiences to be effective, preceptors and placements must be able to develop *autonomy* for the student in a safe environment. Clinical education placements, especially those late in the educational program, need to have shared decision making and allow students to develop their own clinical care philosophy. Sophia states 3 areas of distinction for her clinical education philosophy:

> The third [bucket] is really the bulk of the decision-making opportunity, meaning if they pass the first 2, can they get consistent access to patients? Is this in a place where students are going to be safe and have equitable opportunities? Then really the bulk of the decision about a quality placement or what I believe to be my philosophy about what a quality placement is the third bucket, which is about a challenging clinical environment. So my philosophy set that students should be provided developmentally appropriate but progressive opportunities to grow as a young student into and transform into a clinician, so I try to identify and think through clinical education as, how do we scaffold learning opportunities in real time with real patients? How do we consistently allow our students to be as autonomous as possible but at the same time have appropriate supervision and feedback when appropriate as well? How do we access the real thing that seems to drive their own desire for professional growth, which is typically mediated by something that is about like their interests?

Autonomous practice also comes in the form of communication with stakeholders, patients, and other medical professionals. Samantha states that clinical education must have that component as well to develop the autonomous clinician:

> It's the cohesiveness of the student understanding, the everyday situations, problems that arise—be onsite decisions that are made. The interactions between the medical staff and administration, the patients, parents, the list goes on and on as far as that's concerned, but what they don't—what they do have now is they don't have that breakage in that learning. So it's very fluid and cohesive and collaborative, and they—to me, they—it's easier for them to connect the dots of why the clinicians are making the decisions that they're making because they are. They're hearing it, seeing it, so it's easier to find those connections rather than being part of a situation and rehabilitation evaluation. Something happens, [an] emergency situation happens; being part of that and then not being there.

Student Aspirations. Clinical education is one of the most appealing parts of athletic training education. Students are typically drawn to the field experience and want to have experience for future career *aspirations*. Many CECs mentioned they take the students' career goals and aspirations into account when choosing clinical education placements. Jenni said:

> I get a lot of student input. So we have some set different settings that students need to get experience, and so we kind of have those set, but I have meetings frequently with each of the students to discuss their goals, discuss their ideas for where they want to be placed. So I think a big part of my philosophy is really figuring out what the student wants and trying to help the students reach their goals. I think clinical education is a huge part of athletic training, and it's the fun part for the student, too. I'm letting them have a voice in where they're placed, and some of their options are really good, is really good, and that's part of my philosophy.

Similarly, Paul said this specifically about clinical immersive experiences: "But at the same time, we realized we don't want to give them for 16 weeks here that's not in there, in their future plans."

Ronald mentioned how he was intentional in choosing clinical immersive placements for students based on their career aspirations because he wants the students to experience the demand and rigor of the specific setting:

> Students are placed very intentionally in a setting that most reflects where they aspire to practice after they graduate. So if they want to be a high school athletic trainer, they are going to be placed at a high school for the entire year, and same holds true if they're planning to go to college and university.

Diverse Experience. Clinical education encompasses the use of diverse experiences within patient populations (eg, socioeconomic status, race, gender, sex, religion, culture, age) and settings. Some programs interpret the diverse experiences differently. For example, Nicole's program has a strong emphasis on social justice, and she wants her students to experience different socioeconomic schools for clinical placements:

> So we're at a university that really promotes social justice. So we want to get our students diverse clinical experience. We work really hard to make sure that they're all at a high resource high school in town. Typically, that's one of our private schools where they have multiple athletic trainers, multiple turf fields, modalities, just really any resource that you can imagine in a high school setting because it's a very wealthy well-supported high school, and then we also put them at what we call a low-resource high school.

Sophia talks about gaining diversity in placements not by patient population but by exposure to different medical conditions:

> They are beyond the patient care and are beyond the types of conditions they're getting exposed [to]. At the base of it all, they have to get x, y, and z, but there's the menu of opportunities for the students.

For Ronald, diversity is gained through mini rotations and gaining experiences within different health care professions and patient populations:

So we actually have opportunities to rotate through different various physician offices, get into some sports medicine clinics. We actually reverse those mini rotations. So those mini rotations take place when their normal clinical assignment as a second-year student is not as busy. Some students tend to get out and get those emerging settings as opposed to the traditional settings method training.

Deselection for Harmful Experiences. Within clinical education, there is always a chance that a preceptor or site does meet the standards placed on them by the CAATE or program. CECs mentioned how and why they deselect preceptors or sites based on a multitude of reasons; however, most stated it was a case-by-case situation. As mentioned above, Nicole's program has an emphasis on social justice, and she expects her clinical sites and preceptors to understand social justice, and if that is not happening, she will deselect:

Everybody is treated with the same level of respect, and then they go out, and they see the lack of social justice, and it's just a shock to them, and we appreciate that they bring it to us so that we can approach it, but if the school is not willing to make any changes, our students don't need to be in that environment.

Ronald mentions preceptors need to understand the rigor of being an athletic training student, including classroom work and personal life. He mentions how respect, or lack thereof, is a factor in deselecting a preceptor or site for his clinical education programming:

I will say that sometimes it's a lack of respect for the student's time, so realizing the student's involved in clinical practice across—involved in academic pursuits and also have to have some life balance. So sometimes it's just a lack of respect for students' time. I think that sometimes students get exploited as a workforce.

It is important for clinical preceptors to understand the laws and standards placed upon them from licensure and CAATE. Samantha mentioned a case in which the preceptor did not supervise the student:

[The preceptor] left for 5 hours, and [the student] was in charge and running the whole field hockey team for 5 hours and had to call and return to play. We depend on the situation, but we do have placeholders depending on what the situation is. If it needs to be immediate, or if we can take a longer time to maybe work things out, and maybe it is the wrong placement for the student or the student and the preceptor aren't thriving, we will step in and make adjustments.

Curricular Structure. In the past, before the requirement of clinical immersion, a curriculum for athletic training consisted of didactic course work followed by clinical education. Lauren mentions that the clinical immersion model helps with the quantity and quality the student gets during clinical education:

I think it's really challenging as students to maintain coursework and clinical experience at the same time. What we found in our program was that our students were telling us, "We're being pulled by our class, our coursework, and we're not able—we don't have enough time to do our coursework because we're spending so much time at clinical," and they would be asking for days off of clinical hours to complete their coursework, and so there just was this continuum of kind of a give and take are pulling in both directions, and so I think to really structure and allow students that totality of care, it's really important. To move to the immersion versus those traditional where you are taking classes and doing clinical at the same time because the thought process that what you learn in the morning in class and then that's what you do in athletic training room later, I don't know that that really happens or transpires.

Michael mentions how the integrative clinical education model is useful in the beginning of the education program because it allows for immediate application of skills, while immersion allows for the student to have more confidence:

The importance of the integrative placement is something that I don't know if personally we have the right answer or there's maybe multiple answers, but you know, I do like the integrative and immersive experience put together. We have our immersive experiences in the second half of the program. We think they're better prepared for that. Hopefully, they are a little bit more confident—that a little bit better self-efficacy and their skills, and they are a little bit more ready, mature to go out somewhere externally and be fully immersed in a job setting.

DISCUSSION

Clinical education is a critical step in helping a health care student transition from student to clinician.[1,13,18] Authors of previous literature indicate that students perceive clinical education, specifically the preceptors, as the most important aspect of their education when transitioning to practice.[11] Athletic training clinical education encompasses 3 areas: autonomy, mentorship, and feedback, all of which are needed before students become professionals and practice on their own.[19] Since athletic training students perceive clinical education as the most important aspect of transitioning to practice,[11] it is imperative that clinical preceptors and sites are of high quality and facilitate autonomous practice and growth.

In the past, athletic trainers used the graduate assistant positions to aid in better transition to practice.[20] However, as the profession makes the final switch to requiring professional level master's degrees, graduate assistant positions are likely to become less common. Early career athletic trainers will need to find other avenues to socialize and transition into practice. Other health care professions such as nursing education and physician education also find difficulties in aiding students with the transition from student to professional.[21] The stress from starting a new position as an athletic trainer can be shocking and negatively affect patient care, which is why proper orientation and mentorship is needed.[21,22] Clinical immersion has the potential to offer the day-to-day practice experience, but the experience needs to be high quality and enriching for the students. Immersive clinical experiences allow students to see the totality of the athletic training profession and learn under preceptors that mentor and encourage learning.[7]

In this study, we identified how clinical education placements, both integrative and immersive, were selected or deselected. As the curricular standards for clinical education start to

change, it is imperative that athletic training students learn under preceptors that will challenge them while allowing them to grow to improve on their clinical skills.[23] The purpose of this study was to examine how and if CECs use selection criteria for clinical preceptors and sites and if this differs between integrative and immersive clinical experiences. Athletic training students have identified the need for quality education,[24] which is why it is important that CECs and programs become more selective and less convenient in the selection of clinical education placements. The results of our study show that many programs identify the need for quality clinical education and are aiming to be strategic and intentional in their selections but display a level of convenience when selecting integrative and immersive experiences (previous relationships, geography, student choice).

Accreditation Compliant

Standard 16 of the 2020 CAATE standards states that all athletic training students must partake in an immersive clinical experience during their education.[7] Students will spend a minimum of 4 weeks[7] in an immersive experience, in which time they should be able to develop their own decision-making processes and clinical care philosophy under the supervision of a clinical preceptor. Our results suggest that many programs use the CAATE standards to drive the decision making of clinical sites by engaging in stakeholder feedback and regular evaluations. However, many participants indicated that patient populations and quantity of hours were also driving decision makers in the selection of clinical education placements. We recognize that programs must meet the CAATE standards but recommend that CECs establish more stringent criteria when selecting sites that meet specific standards (eg, diverse patient populations and nontraditional settings) to ensure the preceptor and site will provide an enriching environment for the student to thrive and gain an understanding of the profession.

During a clinical experience, students and preceptors fill out rotation evaluations,[7] which not only help students understand their clinical strengths and weaknesses but also help identify how well or not well preceptors are teaching. While the evaluations are required by the CAATE,[7] it is important for these evaluations to be considered when retaining a preceptor. Our results show all programs that participated in the study are using these evaluations as a guide to either discontinue an ineffective preceptor or site or retain an effective preceptor or site. However, the discontinuation of a preceptor or site was widely on a case-by-case basis. Several participants stated that lack of professionalism from a preceptor, whether that be in behavior or clinical practice, was the driving factor to discontinue the preceptor. We suggest that programs use these evaluations as guides to determine clinical experience quality but also address when high-quality clinical education is not being taught.

Participants in our study noted that there was not a specific programmatic policy for deselection, and as previously mentioned, deselection was determined on a case-by-case basis. Athletic training students need to be given the opportunity to ask questions, gain confidence, and evaluate patients with the guidance of high-quality clinical preceptors.[25] Previous researchers have suggested that many preceptors have a hard time finding the balance between providing high-quality health care and high-quality clinical education,[23] which overall can lead to the lack of engagement for the students. Our results align with the previous notion; however, lack of engagement can be hard to address and, if not addressed properly, leads to low-quality clinical education for the student. Programs need to have subjective and objective guidelines and rubrics in place for deselection of clinical experiences to maintain superior education. When policies are not in place, it leaves room for subjective misjudgment and ultimately leads to students suffering within their clinical education experiences.

Strategic Choices

Students that are actively engaged and have a positive clinical education experience have shown greater enthusiasm and commitment to the profession once clinically practicing on their own.[13] Clinical education experiences should allow students to gain autonomy while practicing, but also allow students to have experiences that align with their career aspirations and goals. While research on master's level athletic training programs is limited, it is predicted that master's level students will better transition into the workforce and have more commitment to the profession.[20,26] As the profession makes the switch from a bachelor's to a master's level degree, programs will start to recruit and accept the adult learner. These students will have a small understanding of where they want their athletic training career to go and will want clinical experiences that massage those goals.

Our results show that programs display a large level of convenience when choosing clinical education experiences (geographical, previous relationships). Student career aspirations are also an additional component to convenient preceptor selection. For students' career aspirations to be met and quality clinical education to be gained, CECs need to evaluate sites before assigning students to a rotation. It is not enough for students to seek out preceptors they want to learn from; the CEC also needs to be involved in the decision-making process.

Standard 15 of the CAATE standards states athletic training clinical experiences and supplemental clinical experiences should provide a logical progression of increasingly complex and autonomous patient care.[7] We suggest programs create individualized clinical education plans that progressively increase students' autonomy and are reflective of their clinical skills. In medicine, entrustable professional activities are used to monitor and document skills that have been observed, practiced, and mastered in clinical practice, so that as a student progresses, these skills do not need to be retested and serve as a foundation in subsequent rotations.[27] CECs describe themselves as intentional in their site selection and deselection; however, the participants did not indicate intentionally planning clinical experiences, integrative or immersive, based on skill or progression. Their intentionality was focused on career-setting aspirations while using sites convenient to the program.

Many characteristics make effective clinical education, such as learning the day-to-day activities and flow, but perhaps the most important one is assuring the preceptor facilitates an environment that promotes mentorship and teaching, which

takes a significant amount of time and dedication to the role as preceptor.[28,29] One participant mentioned how the students are putting their time, dedication, and money into their education, so they deserve the same from the preceptors. However, finding a motivated preceptor that facilities growth and learning can be hard to find, as clinical sites are selected on convenience rather than on them wanting to be a preceptor. We suggest a formal interview and screening take place before preceptors are chosen for clinical education sites. Also, extensive preceptor training on mentorship and pedagogical theories should be integrated to ensure potential preceptors understand the time and dedication that will be needed to teach the student.

Previous researchers have shown that athletic training students display frustration during and after clinical rotations because of the monotony of sites and lack of mentorship and engagement from preceptors.[11] Our results show programs and CECs deselect preceptors and sites based on factors that include but are not limited to legal implications, lack of mentorship, and lack of autonomy; however, policies are not in place for deselection. We suggest creating and using a standard policy for preceptor deselection to ensure all athletic training students are receiving the best possible and highest quality clinical education.

All participants agreed that clinical education placements should facilitate autonomous practice, especially as students approach graduation and the certification exam. Creating autonomy during clinical education helps athletic training students transition to practice and aid in professional commitment and enthusiasm for the profession.[20] Preceptor mentorship is heavily noted in the transition-to-practice literature,[20,22,26] so preceptors who do not act as mentors, put in the time and dedication, and/or create autonomous practitioners should reconsider their role as they are doing a gross disservice to the profession and patients.

Limitations

This study is the first known study in which we examine how CECs select and deselect integrative and immersive clinical education sites in athletic training. At the time of recruitment and data collection, the COVID-19 pandemic was just starting; thus, programs were making vast alterations for clinical education. Although this may not have affected previous selection and deselection behaviors, it may have influenced forward thinking and how the CECs responded to the questions. All those for which the COVID-19 pandemic affected their ability to offer the immersive clinical experiences were excluded from participation.

Future research should be conducted once all programs have fully transitioned to clinical immersion and a professional master's degree. Specifically, researchers should identify if these findings are generalizable and the same approaches to selecting and deselecting clinical education experiences are used across varying institutional differences (eg, size, geographic location, funding) and varying experience of the program and its administrators. Much of the research in athletic training clinical education remains qualitative. Future researchers should aim to generalize the experiences of students, preceptors, and program administrators.

CONCLUSIONS

Athletic training has adapted and changed greatly since the genesis of the profession, including a shift from apprenticeship to a more competency-based model with both didactic coursework and clinical education. The profession is still changing and will continue to change in the coming years as we make the transition to the professional master's degree. Immersive clinical experiences are newer in athletic training, and many programs and administrators are still seeking clarification on how to create effective experiences. Our findings suggest this may be true for both integrative and immersive experiences. For athletic training education programs to remain sustainable and successful, it is important that CECs maintain high-quality clinical education sites that enrich the student learning. Preceptors, students, and CECs must maintain good communication and dedication for clinical education to achieve a high-quality clinical rotation.

Our findings suggest that CECs leverage convenient opportunities that align with accreditation expectations. It is imperative that clinical education offer opportunities that move beyond accreditation minimum standards and focus on high-quality experiential learning that leads to autonomous practice and embraces the diversity of the profession. Clinical education should mimic what professional practice will be. This can be achieved through either integrative or immersive clinical experiences but requires CECs to recognize and cultivate the qualities of high-quality clinical educators.

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