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ORIGINAL RESEARCH

Stakeholder Perceptions of Clinical Immersion in Athletic Training Programs

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Context: Multiple concepts contribute to effective clinical education practice, such as professional socialization, mentoring, and intergenerational learning differences. As the professional degree transition occurs, programs are being afforded the opportunity to restructure clinical education experiences. In March of 2018, the Commission on Accreditation of Athletic Training Education released the newest version of the professional program accreditation standards, and 1 of the new standards that has been adopted requires programs to include a 4-week immersive experience. This concept of immersion as a means to deliver clinical education is not a new concept, but few use it in athletic training.

Objective: Identify perceptions of immersion as seen by athletic training educators and offer potential integration methods.

Design: Qualitative interviews conducted over the fall and winter of 2017.

Setting: Individual phone interviews.

Patients or Other Participants: Eleven athletic training educators with a variety of demographic characteristics.

Main Outcome Measure(s): We analyzed data using the constant comparative method (2 researchers). A third then analyzed data for triangulation.

Results: Three themes were identified: (1) benefits of immersion, (2) implementation concerns, and (3) strategies for implementation.

Conclusions: Although many debate the length of immersive experiences and the value that such an experience brings, educators within this study agreed that immersion would provide benefits to their current clinical offerings. Additionally, individuals currently offering immersion experiences provided real-life examples and strategies that have the potential to provide insight and guidance for those who are still looking at options for implementation.

Key Words: Clinical education structure, clinical education, curriculum sequencing

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KEY POINTS

- Immersion can be used to counter the common clinical education concerns such as geographic location and scheduling.
- Immersive rotations can be used as a way to target different outcomes through purposeful and intentional curricular sequencing.
- Logistics and time within a curriculum are common concerns related to the implementation of immersion.

INTRODUCTION

The transition to graduate education for professional programs is currently in full swing for many athletic training programs in an attempt to comply with the 2022 transition deadline imposed by the Athletic Training Strategic Alliance.[1] The inclusion of a single required immersive clinical education experience has become a required element for the 2020 professional program standards put forth by the Commission on Accreditation of Athletic Training Education (CAATE).[2] *Immersive clinical education* has been formally defined by CAATE as a "practice-intensive experience that allows the student to experience the totality of care provided by athletic trainers. Students must participate in the day-to-day and week-to-week role of an athletic trainer for a period of time identified by the program (but minimally one continuous four-week period)."[2(p3)] Within nursing education, an *immersive experience* has been defined as "a brief, structured, intense nursing practicum where the entire focus is in a particular clinical setting without the distraction of other academic classes."[3(p532)]

For the purposes of this research study, we categorized the "traditional" clinical education experience structure as those programs that have students taking didactic and clinical classes simultaneously throughout the week. The "nontraditional" clinical education structures are categorized as programs that use 1 of 3 forms of separation scheduling for clinical and didactic work. The "daily immersive" model[4] offers classes and clinical experiences on a daily rotating basis. The "combination" model[4] employs integrated and immersive educational experiences at different times over the 2-year graduate program. The "immersive block"[4] is a clinical experience structure in which clinical and didactic classes are kept completely independent of one another and are offered in rotating blocks. The blocks are typically 8 weeks or half a traditional semester, though they can vary in length and split the semesters into sections in a way that best fits content delivery at the given institution.

The reason for immersion centers on the ability for a student to gain a more in-depth understanding of continuity of patient care, and also the ability to gain a full-picture view of the true nature of a profession through constant exposure.[3,5,8–12] The research we found that includes an immersion experience within clinical education of a health care profession is contained largely in the field of nursing, where multiple aspects of the experience have been examined in relation to clinical education structure,[7–12] including what is perhaps the most detailed account of the effect of duration in the work done by Levett-Jones and colleagues[9] on belongingness.

Individual athletic training programs are currently being offered the opportunity to rethink the structure and delivery of clinical education within their programs as they transition to graduate-level education.[1] The purpose of our study was to explore the current perceptions of athletic training educators on the inclusion of an immersion experience as a means of structuring clinical education within professional programs.

METHODS

Participant Recruitment and Sampling Methods

We sent a solicitation e-mail to all program directors and clinical education coordinators of both graduate and undergraduate athletic training professional programs to gauge participant interest. This included a link to a demographic questionnaire for demographic and contact information. We selected participants from the available volunteer pool based on a wide range of demographic factors of both the individual and the institution in order to represent a wide variety of geographic locations, participant characteristics such as job title and years of teaching experience, and program settings such as program level and institution size. The interview participant demographic table (Figure 1) shows the breakdown of participants. The additional factor taken into account was the added demographic category of clinical education structure of the program. The clinical education experience structure of each institution was categorized as either traditional or nontraditional as previously defined. Nontraditional was further categorized into daily immersive, combination, or immersive block as previously defined. We originally identified 10 participants for participation with the option to add additional participants if fully developed themes were not identified within the original participant pool. Data saturation was able to be reached in the majority of areas by the time the 10th interview was conducted. An 11th participant was added to add perspective and depth to the emerging theme of immersion implementation strategies from the perspective of a participant who was currently offering multiple immersion experiences as a part of that participant's program.

Data Collection Procedures

Instrumentation. We employed a qualitative approach to educational research during this study to allow for rich discussion and thorough exploration of current perceptions of immersion within athletic training. I (A.M.H.) developed interview questions for semistructured interviews after the review of relevant literature on clinical education structure,

Figure 1. Participant demographic data.

Pseudonym	Gender	Title[%]	NATA District	Degree Level	Clin Ed Structure**	Institution Type*	Years at Institution	Years Teaching^	Clin Ed Experience[#]	Clinical Practice
Amy	Female	PD	7	MAT	TR	Public, 4 year, M-LP	12	17	17	7
Brad	Male	CC	9	BS	TR	Private, Religious, R3	4.5	4.5	4.5	12
Brenda	Female	PD	1	BS	TR	Private, 4 year, M-LP	27	27	27	25
Bruce	Male	PD	10	BS	TR	Public, 4 year, M- LP	17	19	15	9
Edgar	Male	PD	2	BS	TR	Private, 4 year, M-LP	12	27	19	23
Jeff	Male	CC	5	MAT	TR	Public, 4 year, R2	1	6	5	7
Jessica	Female	PD	6	MAT	NT	Public, 4 year, M-LP	4	14	10	14
Jim	Male	PD	2	MAT	NT	Private, 4 year, Bachelors	1	23	26	26
Lindsey	Female	CC	8	MAT	TR	Private, Religious, M-SP	6	10	10	8
Mark	Male	PD	4	BS	TR	Private, Religious, R2	33	33	16	41
Nancy	Female	PD	3	MAT	NT	Private, 4 year, Bachelors	6	16	4	4

***Structure- NT: Non-traditional, TR: Traditional*	** Based on Carnegie Classification of Institutions of Higher Education*
[%]Title- PD: Program Director, CC: Clinical Coordinator	*R2: Higher research activity*
^Years teaching in athletic training education	*R3: Moderate research activity*
[#]Years of experience with athletic training clinical education	*M-LP: Large program (annually awarding 200+ masters degrees)*
	M-SP: Small program (annually awarding 01-99 masters degrees)

professional socialization, transition to practice, and athletic training clinical education. Interview questions were further based on the objectives of this study (Figure 2). These questions were then reviewed for clarity of the question and the intent by a group of 6 experts in athletic training clinical education from across the country. We made minor formatting and grammatical changes based on the expert feedback before pilot testing the questions on an athletic training educator at an additional small university in the midwestern United States. Once the instrument was developed, we underwent the Institutional Review Board process and were granted approval before soliciting our participants.

Procedures. Before conducting interviews, we asked participants to indicate consent to participate. Individual phone interviews were held in the fall and winter of 2016 to 2017. We conducted these interviews in a controlled environment, free from outside distraction or influence. Interviews were audio recorded on 2 separate devices, 1 as a primary source for transcription and 1 as a contingency plan in case of problems with the primary audio source during transcription. As a means to protect the identity of interview participants, we replaced actual names of individuals with a pseudonym and omitted names and identifying markers of individual institutions. The primary investigator transcribed each interview verbatim before the transcripts were returned to study participants to ensure that data accurately represented the interview conversation that took place before any data analysis.

Data Analysis

The data were first analyzed by the primary investigator (A.M.H.) using the constant comparative analysis method, a form of general inductive analysis.[10] This process consists of first identifying overall themes and subthemes that emerged from the interview transcripts, and then categorizing data by statements or segments into the identified themes or subthemes. Once these were identified a member of the research team (J.L.V.), well versed in qualitative analysis, athletic training education research, and the transition-to-practice literature, reviewed the original transcripts and identified themes. The research team (A.M.H. and J.L.V.) then met to discuss and confirm the emerging themes and subthemes found within the transcripts. We discussed and made necessary changes to themes and subthemes before identifying data that fit within each subtheme. A second meeting was held (A.M.H. and J.L.V.) to discuss the fit of the data into each subtheme. Once we agreed on themes and subthemes and identified data that represented each, a third researcher (S.E.W.) with experience in transition to practice, athletic training education, and qualitative analysis was sent original transcripts, themes, subthemes, and identified interview quotes. The research team (A.M.H., J.L.V., S.E.W.) all meet and confirmed themes and subthemes identified by A.M.H. and J.L.V. with some slight changes in grammar and phrasing. Throughout the analysis and reporting of this research, every attempt to eliminate bias was made. It is still possible that the nontraditional clinical experience structure used by the primary researcher's

Figure 2. Interview questions.

Questions
1. Describe the way clinical education is structured at your institution
2. What do you feel are the advantages of the way clinical experiences are delivered at your current institution?
3. What do you feel are the disadvantages of the way clinical experiences are delivered at your current institution?
4. Talk about the current barriers or constraints to clinical experience delivery at your current institution.
5. Talk about what aids or supports clinical experience delivery at your current institution.
6. If you had the ability to structure clinical experiences in any possible way, regardless of all constraints, what, if anything, would you change from the way it is currently being implemented?
7. In the newest proposed set of accreditation standards, CAATE has proposed that an immersive experience of 4 weeks be included in the curricula for professional programs. The qualification for this immersive experience is that there can be no didactic education in conjunction with the clinical rotation.
a. What are your thoughts regarding the addition of an immersive experience?
b. What do you feel the advantages are to clinical immersion in general?
c. What do you feel the disadvantages are to clinical immersion in general?
d. What strategies is your program considering to adapt to this 4 week immersive rotation?
e. What are the foreseeable challenges to the inclusion of this 4 week immersive rotation?
8. My research team just completed a survey of health care educators about immersive clinical experiences. The data we collected has shown that a minimum of 8 weeks is required to consider a clinical rotation "immersive" as opposed to the CAATE suggested 4 weeks.
a. What are your thoughts regarding the addition of an immersive experience as defined by health care educators?
b. How would this change your implementation strategies?
c. What additional challenges would this pose?

employing institution at the time could have influenced the overall analysis and tone of this study due to inherent bias.

RESULTS

Three separate themes related to immersion emerged from the data: Theme 1 was the perceived benefits of an immersive-type experience. This included the subthemes (a) immersion allows for the ability to take on and experience the true day-to-day role of an athletic trainer; (b) immersion helps students build relationships with those around them, such as preceptors, other students, patients, coaches, other health care professionals, and administrators; (c) immersion can help with student focus; and (d) immersion experiences can counteract the disadvantages that educators see with the traditional model of clinical education. Theme 2 was the challenges or concerns with implementing an immersive rotation within education programs. This included the subthemes (a) having enough time in the curriculum to deliver all necessary didactic content to students; (b) program preceptors; (c) the possibility that students might lose the ability to make immediate connections between didactic and clinical content; and (d) the question how am I going to do this within my program? Theme 3 was strategies for implementation of an immersive experience into athletic training programs. This included the subthemes (a) building blocks; (b) exploring the clinical structure of other health care professions; and (c) being creative. Below we discuss each of these themes along with respective subthemes that emerged from the data.

Benefits of Immersion

Collected data demonstrate that there are multiple perceived benefits of immersion as a means to deliver clinical education experiences. We have broken these into multiple subthemes and offer further explanation for each.

Benefit #1: Immersion Allows the Ability for Students to Take On and Experience the True Day-to-Day Role of an Athletic Trainer. Participants felt that the immersive experience would provide a better indication of the job expectations. Bruce stated, "I like the idea of having the immersive experience and giving the student an opportunity to be a part of the daily routine." Nancy added, "[Students can be] immersed in patient care, without competing course work, that allows them to take on the full experience of the workday." Jessica also stated about the immersive experiences within the curriculum: "They're [students] seeing a little bit better, you know, what it is like to be in that rotation, to be in that setting for a full day."

Jim was particularly vocal@ on this idea when he said:

> *The immersive experience really gives them a sense of what athletic trainers do in that setting, you know, the good and the bad. So, they get to see the things that are behind the curtain that athletic trainers do that students in a traditional university where they just show up for prepractice, post-practice. They also get to see, you know, that sometimes athletic trainers have to work on a Saturday or Sunday, and sometimes athletic trainers work at five in the morning, sometimes practices are from ten to midnight.*

Amy stated,

> *Just having them wrap their heads around the job requirements. But also, being able to see the patients all the way through their recovery. Because I think sometimes especially in fall two-a-days, they are already there for so much time. They might be there for taping and practice, but they might not always come in for the outside treatment, and for the outside rehab appointments, and so now they will be able to be there for everything.*

Benefit #2: Immersion Helps Students Build Relationships with Those Around Them, Such as Preceptors, Other Students, Patients, Coaches, Other Health Care Professionals, and Administrators. Multiple participants spoke to the necessity of relationship building as a key component of both mentoring and the patient-practitioner relationship. Brenda stated:

> *The students would have the opportunity to develop, to become comfortable in their workplace—in their clinical, to develop relationships. We know relationship building is key—is a key aspect of mentoring. So, it's relationship with their preceptor, it's relationship with their patients, you know, whoever is in that environment, it takes time to build relationships. There's trust, delegation, and I think that a longer immersive experience would do that.*

In conjunction with the development of relationships, our participants also indicated that trust in the clinical abilities and decision making of the student was a component of the relationship-building theme. Jim had this to say about the immersive rotations within the current model:

> *After one semester of [preceptors] having students, they've unanimously—every single one of them said, you know, we love this model, we see the value in it, we see the value for us as a preceptor, we see value for the student, and we see value for the patients. The patients trust the students, we trust the students, the students getting a great experience.*

Benefit #3: Immersion Can Help with Student Focus. The separation of didactic and clinical education allows students to devote their attention to one aspect of their education at a time. This concept was seen by our participants who were a part of such a model, and had also been mentioned to the participants by their preceptors in relation to student engagement in the classroom and clinical setting. Lindsey commented, "They [students] could be full-time clinicians, kind of, and not be restricted by classes or the stress of class and homework to where they could just go full bore into patient care. I really like that."

Amy mentioned:

> *I do think there [are] definitely some positives in a student just being able to focus on clinical instead of running back and forth and trying to be a student and trying to be in a clinical rotation, where they can just say, "I am going to really get an idea of what a day in the life is," you know, and just be there clinically. I feel that some of the positives that could come out of it will be more consistency of patient care.*

Jim had this to say of his students in the immersive format:

> *They are able to focus on their academics, they don't feel like they have a full—where in a more traditional setting of a program they would feel like "Oh, I have to be out on clinical and I'm in class," or "I really hate being in clinical just because we have an exam tomorrow and I really need to be studying." And so they will be singularly focused on the task at hand and they are able to, you know, focus time to their academic work and really mastering the material.*

Benefit #4: Immersion Experiences Can Counteract the Disadvantages That Educators See with the Traditional Model of Clinical Education. The referenced disadvantages were items and statements identified by participants when speaking to barriers and disadvantages within the current clinical education experience structure, such as students missing patient contact opportunities for prepractice treatments due to didactic class schedules or students missing didactic course work for travel opportunities at their clinical site. This subtheme encompassed many different such statements, though the most apparent is the challenge that the location of the institution places on clinical rotations. Due to the inherent nature of traditional integrated clinical education, students have to remain close enough in proximity to be able to attend classes and to report to their clinical rotation on the same day. Our participants indicated that an immersive experience would offer the chance to expand the current placement options. Bruce had this to say:

> *The nice thing is that they could maybe go back to their hometown and work or they could go have an experience where maybe they take off and go, you know, we're on the West Coast if they go to the East Coast and see what it's like on the East Coast and gain some experience of what it's like*

working on the East Coast or something that way if they were willing to do that.

Implementation Challenges and Concerns

Despite the support and benefits indicated by participants, they also voiced concerns or potential challenges regarding the implementation of an immersive experience into the current or potential graduate-level programs.

Implementation Concern #1: Having Enough Time in the Curriculum to Deliver All Necessary Didactic Content to Students. This seemed especially concerning for those educators who are offering, or plan to offer, a traditional model of clinical experiences within a graduate education program. The participants voiced concern about the already shortened curriculum with graduate-level programs. Bruce said, "The hard part is getting all of the academic components covered in the educational setting that would allow them to get to that point of being able to go." Jessica echoed this sentiment in saying, "I think the problem with that is you're cramming even more learning into a shorter time, which gives them less time to really absorb it." Others were less concerned about the potential requirement. Nancy, whose program is offering a 7-week immersive rotation during the summer, and Jim, whose program uses the immersive block formatting, had little concern about the immersive inclusion eliminating classroom time. They both indicated that planning and addressing these logistical concerns during the development of the master's program eliminated the "cramming" concern raised by the other participants. Amy stated, "We are trying to be thoughtful about what makes sense to teach them in a shorter time period, and the overall load. So, really trying to look at the whole program in totality instead of just jam this in to make that work later."

One participant, Jim, who is already in the midst of offering a series of immersive clinical experiences in his program, had a bit of a different take on logistical concerns. He spoke to the idea that offering a shortened didactic semester to account for an immersive experience can be hard on the program faculty who are now teaching in a manner that is drastically different from what is seen in the traditional 16-week semester that most educators are used to. He spoke to the necessity of finding faculty who were willing to buy in to this unique model.

Implementation Concern #2: Program Preceptors. Our participants also identified 2 different concerns regarding program preceptors surrounding the implementation of an immersive experience. The first was the worry that the immersive experience would place too much of a burden on these preceptors, resulting in the loss of both preceptors and clinical site options for the program. One participant, Edgar, was particularly outspoken about this potential concern:

> *If you call me and say "Hey, I want you to take two of our students in the immersion thing. It's eight weeks, it's ten hours a day. . . ." Really? I might do it once, and then at the end of the day the next time they call I'm going to be like "Dude, that was way too much work, I'm not going to do that." So now we're going to ask preceptors to supervise somebody eight to ten hours a day? For four weeks or eight weeks or whatever? No one's talked about that, who wants to do that? What if everybody says no?*

In contrast to the concerns raised by Edgar and others, Nancy indicated that she is seeing an opposite response from those associated with her program:

> *I have been surprised, pleasantly surprised, at the number of clinical sites that want to jump onboard with us. Just reaching, branching out geographically, and preceptors hearing that students will be there for an immersion, that excites them.*

The other concern voiced regarding preceptors is that the increased time spent on-site might blur the lines between athletic training student and student aide. Some participants within this study indicated fear that the immersive experience would further allow the potential for students to be treated more as another set of hands and an extension of the preceptor as a means to complete work rapidly, instead of being offered a quality educational experience due to the amount of time students would be spending at the clinical site on a regular basis.

Lindsey said:

> *Obviously as educators we always worry about our students being a workforce. So that would be the only thing that might begin to make me a little crazy because they would have no excuses. There would be no like—I think sometimes preceptors would take advantage of it.*

Implementation Concern #3: Students Might Lose the Ability to Make Immediate Connections Between Didactic and Clinical Content. Within the traditional model of clinical education experiences, the potential exists for a more immediate connection of didactic and clinical content, with concepts learned earlier in the day now on display in a real-time opportunity at the clinical sites. Brenda offered:

> *I think what is going to be lost with going to this very separate model is that concurrent "Aha!" moment—the Gestalt—where "That's what an ACL deficit feels like" instead of it being that it was three semesters ago that I learned about the knee.*

Jessica offered a similar thought:

> *If a student crams a sixteen-week course into eight weeks and does not get the opportunity for clinical application until after the didactic course is complete—or even until halfway through the course—have they retained the content or even truly understood the content well enough to then go apply the information within a four- or eight-week time frame?*

Implementation Concern #4: How Am I Going to Do This Within My Program? The last identified implementation concern or challenge is in regard to the realities of trying to insert this type of experience into the current education program. This was indicated in many forms by our participants. Brad indicated that he was concerned about the added cost to the student that might be associated with implementing an immersive experience into programs:

> *The only thing with that is working out logistics. Because, you know, like, we have to find places for them to stay here, and we have to find things for them to do, and you know, that's going to be another big fee, I mean our school costs almost $50,000 a year to go to.*

Edgar worried about the added work an experience of this type would impose on program administrators. He had this to offer about securing contracts:

> *Our clinical coordinator is going to have to set up contracts and do all this other MOU [memorandum of understanding] stuff in order to get people placed. Because they can't all do it here. So, there's a whole new set of challenges to the clinical education core—logistic, legal, paperwork, communication.*

Others worried about the sequence of implementation and when it made the most sense to try to offer this type of experience in their program. Multiple participants indicated that immersion would make the most sense to implement after students had had the majority of their didactic content; otherwise it would not be as effective. Some were still skeptical about the point of offering immersion in general, wanting to see evidence before the implementation requirement. Jeff stated:

> *I would definitely like to see some evidence. . . . Are their GPAs better, is their BOC better—is their cumulative score on the BOC better? Is there a higher graduation rate? You know, looking at all of those parameters to see really what are we putting out with the [immersive] educational model.*

Jim, who is currently offering a program that is close to a fully immersive clinical experience model, has a unique take on the implementation concerns. He commented:

> *I think that [implementation of an immersive model] is the biggest challenge, because it is so outside the box that if you were not at a school that has PA [physician assistant], or OT [occupational therapy], or PT [physical therapy] that uses that specific model, or you don't have an administration that is supportive, I can see this being very problematic. Because it's expensive, and it's a lot of work to get these clinical sites set up.*

Strategies for Implementing Immersion Experiences

With immersion in athletic training education now identified as a necessary and required component of clinical education, the participants who have yet to implement this type of experience in their curriculum have also asked for any possible or potential information that could be found in the form of implementation strategies. Most have their own specific ideas about what might work for their current program and institution, but others who are currently in the midst of offering such an experience offered other possible ideas that might allow for a smoother or more palatable implementation of an immersion experience.

Implementation Strategy #1: Building Blocks. The first strategy uses the idea of creating multiple levels of content delivery that all build upon previous learning from a sound foundation of information. This would allow information to be layered and gradually increase the level of understanding for the students. As their knowledge is allowed to expand, so too are the clinical experiences structured to gradually allow for additional skill application. Perhaps as best said by Brenda, "I just think we need to have building blocks." This sentiment was echoed by multiple participants who feel it necessary for educational experiences to build upon what has already been learned in previous rotations.

Implementation Strategy #2: Explore the Clinical Structure of Other Health Care Professions. The second implementation strategy identified is to use thoughtful consideration of the structures of other health care professions when searching for strategies to implement an immersive rotation. One participant, Mark, theorized that his program might adopt a structure similar to the one used in the physical therapy program at his institution in order to include an immersive rotation. Another participant, Jim, when asked previously about the thought process behind the model that offers didactic and clinical education in a block format, had this to say: "It really wasn't hard. I just looked at PT, and OT, and PA, and medicine, and it is just copying what they do. It's not anything unique."

Implementation Strategy #3: Be Creative. The last implementation strategy given by our participants was to be as creative as necessary when considering potential ways to implement an immersive clinical rotation. The institutional autonomy that has always been afforded to individual programs by the governing bodies within athletic training will still be present when the new standard is finally implemented in 2020. This can be used to the advantage of each individual program by deciding how it would best fit into the mission, goals, and structure already in place. Multiple people have offered the thought that there is the potential to use summer, when school is not typically in session, to complete the immersive rotation. Others have offered the suggestion of thoughtfully structuring classes within the curriculum so that it is possible to offer the right classes in a more condensed format that allows for an immersive rotation to be completed the final semester of the program. Those that are already offering a nontraditional model in their clinical education spoke to the idea that graduate-level education usually offers programs the flexibility to diverge from the calendar and class blocks that are typical of an undergraduate program. As Amy mentioned:

> *We are not allowing ourselves to be constrained by typical academic calendar and our university has not imposed that on us either. We function on a different calendar, all of our graduate programs do, and I think that is a KEY piece.*

Programs urge individuals to use this to their advantage and explore ways to use this new freedom advantageously. One participant, Nancy, had this to offer:

> *I think that programs that are just trying to repackage their undergraduate program—slap some different labels and numbers on it—they're missing a huge opportunity to do something innovative. I think those that are paying attention to what's going on around them and conversations that CAATE has had publicly—I mean, they've said for, you know, a year now about immersions, that that needs to happen. I think that programs need to—hopefully are looking at the literature and looking at peer professions and seeing what does that immersion kind of look like so they're not caught in a pickle.*

Another participant, Jessica, said this of implementing immersion experiences:

> *I believe that athletic trainers are incredibly creative people and that different people can come up with different ways to create an immersion experience that is appropriate for their respective programs. I don't believe that one method is*

necessarily better than another as long as some sense of immersion is accomplished.

DISCUSSION

As can be seen in the results of our study, immersion and the inclusion of such a clinical experience model is an often-debated topic within athletic training education, specifically with respect to implementation and logistics. Currently, it is a topic that is in the forefront of the minds of many educators, given the newly released standards that will require inclusion of such a model into current professional programs. Though opinions vary, the value of such an experience is recognized by athletic training educators.

Benefits of Immersion

The benefits of immersion identified by the participants in this study, specifically the potential for students to experience the true day-to-day role of an athletic trainer, is a key concept in the current literature for transition to practice. Transition to practice is the ease with which an individual is able to assimilate into a new role as a clinician from the role of a student.[11] The current research in this area is fairly extensive, especially since the smooth transition of providers into their associated health care professions is nonexistent for most professions.[12–14] For many reasons, the field of nursing has begun to adopt the idea of a residency program to aid in the transition of new graduates.[12,14,15] This allows for a more formal mentoring process to address some of the issues that arise within the transition from student to practitioner, and has been accompanied by a decline in stress within first-year residents, as well as a decline in the turnover seen within first-year practitioners.[15] Sullivan-Bentz and colleages[14] identified that first-year nurse practitioners are affected by the interpersonal relationships formed within their new role.

Many have found that the confidence of first-year nurses improves when they are provided a formal mentoring process, additional interprofessional learning opportunities, regular meetings with supervisors, and additional time for incoming nurse practitioners to ask questions.[14] A similar trend was found in nursing students by Haffer and Raingruber,[16] who noted that the confidence of nursing students improved as student nurses continued to ask more questions and learn from the experience of others. The researchers recognized that the transition period between student and practitioner allows for the learning of professional behaviors that sets a new practitioner up for a lifetime of professional learning behaviors.[17]

Another identified benefit of immersion that has applicable parallels in health education literature is the chance to build relationships. This feeds directly into the literature emerging from health care that looks at mentorship and professional socialization, both also key pieces of transition to practice. Mentorship is a heavily researched concept in health care education research, shown to contribute greatly to the development of clinicians. It is built on a foundation of forming professional relationships between a more established practitioner and a new practitioner. Mazerolle, Walker, and Thrasher[13] defined mentoring as "a relationship that forms between a novice and a more experienced individual, whereby the more knowledgeable person helps guide the protégé in development." Researchers have noted that mentoring is a necessary component to the professional development of any future professional. Mentoring can be done both formally and informally, and effective mentoring provides professional support and inspires confidence in a novice practitioner.

Implementation Challenges and Concerns

The majority of concerns surrounding immersion identified by our participants were largely voiced by the participants who had yet to implement immersion into their current programs. This is especially true for those who expressed the worry that the possibility for immediate connection between didactic and clinical experiences would disappear with the immersive clinical model. This recognized benefit within the traditional models in athletic training has not been researched to determine the true extent or effect of the immediate connection. Those participants who are already implementing immersion in their given programs have not identified this concern as something that has affected the success of their students. This is also true for the identified logistical concern regarding the interest of preceptors in supervising students in an immersive-style rotation. In fact, this concern seemed to be completely unfounded when we consider the following comment from Jim:

> *After one semester of [preceptors] having students, they've unanimously—every single one of them said, you know, we love this model, we see the value in it, we see the value for us as a preceptor, we see value for the student, and we see value for the patients. The patients trust the students, we trust the students, the students getting a great experience.*

Implementation Strategies

Implementation strategies identified by participants all have a basis in prevalent research in education. The first is the concept of using building blocks to structure the clinical education experiences, which is better known in research as "scaffolding." The concept of scaffolding as a means of skill acquisition was identified and put forth by Russian psychologist Lev Vygotsky as part of his sociocultural theory,[18] looking at the way learners connect old and new information. The recommendation involves building upon a solid knowledge base as a foundation and connecting new information to what is already known by the learner.[18] This concept is reflected in multiple responses by our participants, most eloquently stated by Brenda, who called for the use of building blocks within the educational program. Others, like Mark, made a more loosely connected reference to this idea when stating that didactic education must come before clinical education. This also alludes to the building block concept in the merging of clinical and didactic education. For implementing this into the clinical education structure, we encourage athletic training program officials to think very intentionally about the objectives and intent of the offered clinical rotation. Do you intend to give students a taste of the true nature of athletic training early on in the program when observation of higher-level skills will give them motivation for what they can do for the future? Do you want to have an immersive rotation as a final culminating experience in which students can function similarly to an entry-level professional? Is there a benefit to offering an immersive rotation that has a hyperfocus on general medical conditions and the associated

skills to reinforce key concepts that were introduced in a previous semester? The underlying current in this identified theme encourages program officials to think more about the intended outcomes of the immersive rotation and when it makes the most sense to offer this type of experience first and then build the rest of the curricular schedule around it rather than trying to fit it into a traditional and already-set schedule.

Another identified implementation strategy is the collaboration of athletic training with other health care professions when programs are looking to develop the structural framework for the inclusion of an immersive experience. The recognized value of interprofessional education, especially in regard to patient care, has become a popular topic in health care research. The majority of the current research looks at the impact of a team approach to medicine on the quality of health care provided to patients. Little to no research has addressed interdisciplinary approaches to learning and student outcomes. Jim, in this study, best stated this as he talked about the development of an immersive block structure for the educational offering in his program. The model of his program closely follows a current educational practice pattern in a large number of physical therapy programs across the country. Similarly, Jessica's daily immersion model follows the same clinical education model as a large number of graduate and undergraduate nursing professions. Still others, as can be seen in Nancy's program, are combining aspects of clinical education seen in multiple professions to create something new. Since our data were collected, we are hearing about additional creative and novel clinical education experience structures emerging that were not in place even 2 years ago. One program is offering 12-week semesters with a 4-week immersion experience at the end of each to allow immediate use of the newly gained skills. Because of intentional mirroring of other similar professions, there is also the added possibility that the intentional scheduling of interprofessional education could be made easier now that multiple programs operate on a similar schedule. We as researchers encourage programs to consider the potential for additional models and added creativity in the scheduling of clinical education offerings to allow for comparison in future research.

Immersion as a means of clinical education experience delivery is a foregone conclusion within athletic training education.[1] Now mandated by the 2020 Standards for Accreditation of Professional Athletic Training Programs,[2] programs are required to figure out a way to include this type of experience as a part of their clinical education offerings. As seen with the participants in this study, many potential options for sequencing exist, including those that have yet to be explored within this research area. The information uncovered both in interviews with our participants and by looking at the immersion research done in our peer professions leads us to believe that with purposeful scheduling and inclusion of this type of clinical rotation into athletic training programs, we can positively influence the clinical preparedness and can ease transition to practice for our future graduates.[7–9]

LIMITATIONS AND FUTURE RESERCH

Some of the limitations that we faced with this study largely have to do with the variety within the clinical education structural models that are in place at the institutions of the study participants. This is a recognized and intentional limitation that exists within the athletic training profession to allow for each individual program to deliver content in a way that is best suited to that program's individual needs. For this study, however, it formed an additional limitation as we included only 3 participants from programs that use a nontraditional structure for clinical experiences. Though limiting, this is still a reflection of athletic training education as a whole. While our study identified the most common clinical experience structures and our participants spanned many demographic categories, there is also a high potential for additional variations to clinical education structure to exist within other programs across the country. As with all qualitative research, an additional limitation of this study is that the results are not generalizable to a greater population due to the nature of the research methodology.

Multiple opportunities for future research directions exist as a result of our study. The most notable is the necessity for quantifiable measures to compare immersive and integrated clinical experiences in relation to student outcomes. This includes potential differences in belongingness, clinical reasoning and preparedness, student performance, and critical thinking. Other potential avenues for research would involve the perceptions of other stakeholders, such as preceptors and students. We would also be able to replicate this research with other health care professions that offer multiple models of clinical experience structure to allow for comparison.

CONCLUSIONS

The current views on immersion as a method to deliver clinical education experiences are many and varied. Our participants provided insight on immersion and the potential avenues that might exist to implement such an experience within athletic training clinical education. Though some logistical concerns have been identified, the benefits of an immersive experience parallel the positive effects seen in relevant research in the areas of mentorship and transition to practice. With the upcoming 2020 accreditation requirements that call for the inclusion of an immersive clinical experience in athletic training upon us, program administrators and faculty members should make use of the strategies explained here and be aware of concerns identified in our research as they move forward.

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