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A Theoretical Model of Transition to Practice for Athletic Trainers

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Context: The transition to practice of newly credentialed athletic trainers (ATs) has become an area of focus in the athletic training literature. However, no theoretical model has been developed to describe the phenomenon and drive investigation.

Objective: To better understand the lived experience of the transition to practice and develop a theoretical model of transition to practice for ATs.

Design: Qualitative study.

Setting: Telephone interviews.

Patients or Other Participants: Fourteen professional master's athletic training students (7 men, 7 women, age = 25.6 ± 3.7 years, from 9 higher education institutions) in the first year of clinical practice as newly credentialed ATs.

Data Collection and Analysis: Participants completed semistructured phone interviews at 3 timepoints over 12 to 15 months. The first interview was conducted just before graduation, the second 4 to 6 months later, and the third at 10 to 12 months. The interviews were transcribed and analyzed using a grounded theory approach.

Results: We developed a theoretical model to explain the causal conditions that triggered transition, how the causal conditions were experienced, the coping strategies used to persist through the first year of practice, and the consequences of those strategies.

Conclusions: The model provides a framework for new athletic training clinicians, educators, and employers to better understand the transition process in order to help new clinicians respond by accepting or adapting to their environment or their behaviors.

Key Words: coping strategies, professional development, professional support, new clinicians

Key Points

- Our model provides a framework that presents the transition to practice as a normal and necessary part of personal and professional development.
- Newly credentialed athletic trainers should use trial and error and self-reflection and seek support throughout their transition as they work to find their rhythm in the chaos of their new positions.
- The process of the transition to practice begins when newly credentialed athletic trainers experience a clash of cultures and attempt to reconcile the differences in expectations between educational and professional practice.

Transition is a psychological process that occurs when adapting to the large-magnitude changes that occur as part of a major life event, resulting in a restructuring of how people view themselves and the world.[1] Accordingly, the *transition to practice* is the psychological process that occurs as individuals progress from students to clinicians. This subjective process can take 6 to 12 months[2–5] and requires individuals to make the psychological changes necessary to produce appropriate behavioral changes.[1] Through this process, individuals accept, negotiate, or reject cultural behaviors.[6]

Professional concerns related to job preparedness and the performance of transitioning new clinicians have been documented in the literature.[7–9] In an attempt to address these concerns, researchers[8,10] have investigated methods that affect this transition. Several mechanisms have been identified as assisting the transition, including mentoring, organizational orientation, and peer learning or peer-assisted learning.[7,8,11–13] These mechanisms are thought to facilitate role transition by creating awareness and knowledge regarding the specifics of the positions assumed by newly credentialed athletic trainers. Providing assurance and support to young professionals translates into increased confidence in their clinical skills and abilities. However, much of what we know regarding the transition to practice in athletic training is through a cross-sectional lens or at the professional undergraduate level, an entry-level path that will soon be eliminated.[7,8,11–13]

Recently, Bowman et al[14] expanded these findings among professional graduate students and both identified new mechanisms and provided a deeper understanding of previously described mechanisms. Specifically, they suggested that the use of established mentor networks, exposure to a breadth of clinical practice, and increased autonomy in clinical experiences eased the transition. The transition process can begin before one assumes the full-

time role of an athletic trainer (AT) through exposure to the employment setting, along with effective mentorship that facilitates autonomous experiences while the individual is still in a student role.[4,13,15,16] Once the AT has assumed the new position, a successful transition must include organization-specific mechanisms, such as mentorship, orientation sessions, and a chance to live the role before fully appreciating the new employment setting.[4,7,16]

To progress the study of the transition to practice, investigators must move beyond the current descriptive research on the lived experiences of newly credentialed ATs who are transitioning and progress to developing theory that can show the process. Generating theory promotes a better understanding of why the transition to practice occurs and how it is given meaning.[17] Moreover, theory provides insight into the process of adaptation individuals undergo to align their actions with their goals.[17]

The purpose of our study was to explain the experiences of transitioning ATs and then generate a theoretical model of the transition to practice for professional graduate students. We primarily used *grounded theory*, a qualitative method designed to examine phenomenologic realities in order to generate theory.[17] Specifically, grounded theory moves beyond the descriptive and creates theory that provides an explanation of why an event occurs.[17] Such insight enables an individual to "explain and take action to alter, contain, and change situations."[17(p11)]

METHODS

Participants

A purposive sample of 14 graduates (7 men, 7 women, age = 25.6 ± 3.7 years) from 9 professional master's athletic training programs took part in this qualitative study. We evaluated professional master's students to ensure that the results would expand current knowledge, given that undergraduate professional programs may no longer accept students after 2022.[18] Therefore, by 2025, professional programs will no longer exist at the undergraduate level, and no undergraduate students will be eligible to take the Board of Certification examination. At that time, all new clinicians will be products of professional master's programs, which may make the findings of transition-to-practice research conducted among undergraduates less relevant. To recruit participants, we sent emails to the program directors of all accredited professional master's programs and asked that they forward the emails to students in the last semester of the program.

Participants were followed from their last semester in graduate school through their first year of autonomous practice as ATs and represented institutions in 7 of the 10 National Athletic Trainers' Association districts. They were employed in diverse settings, including high schools (n = 5), colleges (n = 6), performing arts (n = 1), or professional sports (n = 2). The sample size was determined by data saturation and occurred by the 14th participant. Data saturation is signified by redundancy in the data, indicating that further data collection would yield similar results.[17] In other words, as data are collected, new data are constantly compared; when interviews yielded similar responses and the researcher memos become repetitive across interviews, the data are considered *saturated*. We collected the data so that we could understand the contexts for the experiences described. The purpose of our study was not to determine differences in experiences but rather to identify participants' shared experiences.

Data-Collection Procedures

Upon receiving approval from the institutional review board, we conducted and audio recorded the semistructured phone interviews. The interview guides (Table) were developed based on the current transition-to-practice literature in the athletic training and nursing fields[2,5] and were specific to each of the 3 data-collection timepoints. The interview guides were then reviewed by outside researchers familiar with the transition-to-practice literature. This review was followed by a small pilot study (n = 3) to ensure clarity and flow. The pilot study resulted in a resequencing of questions but no changes in content. We did not include the pilot data in the analyses.

Interview data were collected longitudinally at 3 timepoints: (1) during the participants' last semester, usually within 3 weeks of graduation, (2) 4 to 6 months after beginning autonomous clinical practice, and (3) 10 to 12 months after beginning autonomous clinical practice to ensure that the entire transition was represented. These timepoints were selected to support the longitudinal nature of the study but also to align with past explorations[5,14,16,19–21] of the longitudinal nature of transition to practice, which used similar timepoints. The broad, open-ended questions were designed to gather rich detail on the lived experiences of the participants. We used probing to clarify responses, gain further insight, or both. Interviews were transcribed verbatim. The data were generated from more than 20 hours of interviews.

Data Analysis and Credibility

Our data analysis followed the systematic approach as outlined by Corbin and Strauss[17] and occurred in stages. First, we used open coding to develop themes. We attempted to saturate each theme and build properties, or subcategories, within each theme. These subcategories represented different aspects of each theme.[17] Open coding was conducted using a constant comparative approach to show possible continuums within the themes.[17] The result was a coding paradigm through which we identified the central phenomenon (ie, the transition to practice). Two researchers (B.F.K. and T.G.B.) then performed axial coding, returning to the data to gain insight into coded themes that related or helped to explain the central phenomenon.[17] Finally, we performed selective coding to connect the themes, creating a conceptual map of the process of transition to practice.[17]

The 2 researchers independently completed these analyses and then shared their findings. Any differences were negotiated until the final theory incorporated the *abstract analytical schema* that best fit the data.[17] This schema graphically represents the integration of concepts and themes into an interconnected process: a *theoretical model*.[17]

Several methods were used to establish credibility. Peer evaluation was a critical component and occurred throughout the study. Before data collection, a peer performed an instrument review to improve the study design. On completion of the data analysis, the peer was provided

Table. Preliminary Interview Guides[a]

First Interview [last semester before graduation]
1. Do you feel adequately prepared to transition into clinical practice after passing your Board of Certification exam? Please explain.
a. Can you explain to me your thoughts about the transition?
2. What are your expectations as you transition from student to autonomous practitioner?
3. Do you believe you have a clear sense of your future job roles and responsibilities?
4. What strategies do you think you will use to help navigate those challenges you foresee?
5. How do you think you will find support for clinical decisions?
6. Do you have a mentor, someone you consider to be a person to reach out to, seek advice or guidance from?
Second Interview [4–6 mo into professional practice]
1. Can you explain to me your initial reaction to transitioning to autonomous clinical practice? What emotions did you experience? What processes did you go through as you transitioned to the new role or position?
2. Were your expectations as you transitioned from student to autonomous practitioner accurate? What was different than you expected? What was exactly as you expected?
3. Did you have previous experiences in this setting?
4. Do you believe you have a clear sense of your job roles and responsibilities?
5. Reflecting back on your time since you entered professional practice after graduation, what challenges did you face regarding your development as an independent practicing [AT]?
6. What strategies did you use to help navigate those challenges you faced over the last several months since we last talked?
7. So far, what has helped you transition into your current role? Can you give some specific examples?
8. What do you believe has helped you gain a sense of your role, expectations, and other nuances of your current job over the last several months?
9. Are you clear on your employer's expectations of the position you are holding?
10. What advice would you give to yourself before graduating with your professional degree or someone else who was just beginning the transition to independent practice as an AT?
11. What aspects of your current position do you enjoy the most?
12. What aspects of your current position do you enjoy the least?
13. What types of decisions do you find yourself making most frequently in your practice setting?
14. How do you find support for clinical decisions?
Third Interview [10–12 mo into professional practice]
1. Reflecting back on your time since you entered professional practice after graduation, what challenges did you face regarding your development as an independent practicing AT?
2. Do you believe you have a clear sense of your job roles and responsibilities?
3. What strategies did you use to help navigate those challenges you faced over the last 6–8 mo?
4. What do you believe has helped you gain a sense of your role, expectations, and other nuances of your current job over the last 6–8 mo?
5. What advice would you give to yourself before graduating with your professional degree or someone else who was just beginning the transition to independent practice as an AT?

Abbreviation: AT, athletic trainer.

[a] Items are reproduced in their original format.

with 2 coded transcripts and the presentation of the results for verification. The peer was selected based on content expertise in both ATs' transition to practice and qualitative research design. Expertise was determined by the peer's published studies on the transition to practice and grounded theory but was independent of the data-collection process and initial analyses. We discussed all suggestions made by the peer until we agreed. A process journal was used to track the evolution of thought and ensure credibility.[22] The process journal was then used to communicate the findings and theory development to other researchers for validation.[22] Additionally, because all of the authors and peer experts were ATs who had experienced the transition from student to autonomous clinician, the process journal allowed reflexivity to occur organically throughout the analysis.

RESULTS

The grounded theory model for the transition to practice of newly credentialed ATs is presented in the Figure. The model expounds on the psychological changes that occur as individuals who have functioned clinically only as supervised athletic training students start working clinically as autonomous ATs, a process that in many ways marks the development of a professional identity.

Clash of Cultures: Causal Conditions

The phenomenon of the transition to practice begins as individuals become aware of the distinction between who they have been (athletic training students) and who they must become (professional ATs). The data suggested that the psychological process of transition was initiated by the conflict that occurred as newly credentialed ATs became aware of the differences between the cultural norms and expectations they faced as students learning in educational clinical settings and those of professionals in clinical settings. Specifically, newly credentialed ATs became aware that, even with the confidence gained as athletic training students, educational clinical cultural norms and expectations were limited. As they were exposed to the

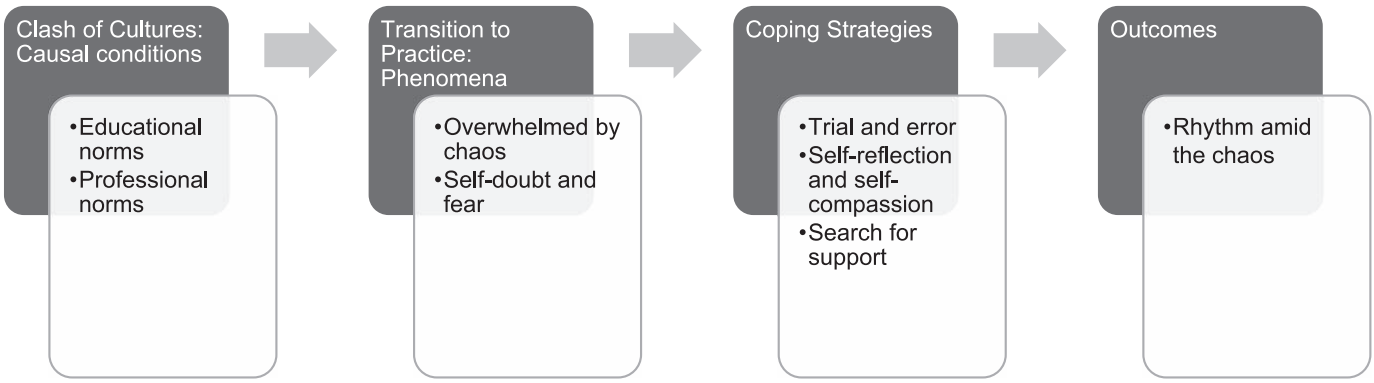

Figure. A theoretical model of transition to practice for newly credentialed athletic trainers.

professional cultural norms of employers, coworkers, and patients, our participants became aware of the ways in which they had been protected as students from some of the responsibility for ensuring patient safety. The resulting incongruence created a culture clash between educational clinical cultural norms and professional cultural norms.

Educational Cultural Norms. No matter the level of autonomy allowed by a preceptor, full autonomy does not occur during clinical education experiences, as all clinical experiences must be supervised.[23] This supervision provides a safety net. Sophia concisely described this realization as she acknowledged that, "There's always going to be a level of nervousness when you're going from a position where [you] always had that safety net of 'I'm supervised.'" Other participants described the same sentiment. Emma shared:

> If it didn't get done, or [athletic training students] did something incorrectly, [preceptors] would just do it, or fix it, or handle the situation. If I couldn't be somewhere because of class or something else, it wasn't a big deal.

This theme was also expressed reflectively as the ATs looked back at the first year of practice and acknowledged the difficulty of being on their own without a preceptor. Olivia commented, "I had to just learn how to figure out how to do things on my own." For our respondents, it was the experience of "doing things on my own" that had previously been limited by the safety net present during clinical education.

Professional Cultural Norms. Our findings indicated that the safety net culture experienced by our participants and required by professional education[23] generated uncertainty due to the limited exposure and experience they had in dealing with situations that are innately part of the profession. They realized that many skills and tasks had been performed by their preceptors that they, as students, did not experience. Olivia felt "prepared, of course, in some way, but I feel like not 100%." These professional tasks and skills were frequently related to administrative and conflict management.

Respondents frequently mentioned the difficulty they experienced with the administrative documentation load carried by professional ATs. Mason explained:

> When I came in [to the clinic as a student], pretty much most of the administrative work was done for me. I pretty much just had to write the treatments and the evaluation that I did, but as far as compiling a medical record, prior medical history, and getting insurance stuff, that I didn't have to do. That part was more difficult for me because I haven't had that experience.

Considering the breadth of responsibility held by ATs, documentation seemed to be daunting. Emma identified some of her greatest challenges as "dealing with coaches on a regular basis, time management, and documentation." Benjamin described his dissatisfaction with the "quality of recordkeeping" he encountered: "It's something that I've tried to improve. . . but I was not in a good habit [of documenting] coming out of school because my preceptors didn't encourage that." A lack of understanding related to administrative expectations was an underlying concern and frequently resulted from lack of experience, exposure, or both as preceptors handled those tasks.

Conflicts are a natural part of a work environment. However, the nature of the conflicts experienced by participants was unexpected. Conflicts often occurred during participants' first year of practice and were typically triggered by 2 conditions: ignorance and "turf wars," which required communication with individuals who were ignorant of the athletic training scope of practice and when working with individuals who wanted to be "in charge." Respondents were unsure of how to navigate these situations due to their lack of experience.

Ross discussed his internal dialogue when working with parents who were ignorant of ATs' scope of practice:

> I don't know if it's necessary for me to have to say, "Yeah, you have a sprained thumb," but [the patient's] mom is saying, "We need to get this looked at!" Where do I give a little bit of pushback with the parents? They don't know. Those kinds of decisions are like. . . where do I say, "Listen, I know you're the parent. I know you have your kid's best interests in mind, but so do I, and I'm qualified to do this. You're an accountant."

Participants spoke to the lack of experience with conflict management during their educational training. Benjamin recalled:

> There's definitely been some conflicts with coaches who don't really have a good grasp of what I'm here for and what my role is, as well as how much time I can spend with their athletes versus the other 260 athletes that I have here.

Emma also addressed the conflict that occurred with coaches, specifically when a coach circumvented her in situations related to patients under her care:

> I didn't really expect it to be as hard, I guess, as it has been, just trying to gain the trust of my coach, 1 coach in particular. I mean, it's gotten a lot better, but at the beginning, he would go around me to talk to the head AT, who has nothing to do with track, and it was a cross-country issue, so that was very frustrating.

James observed that turf wars occurred not only with coaches and coworkers but also with other health care providers:

> Other medical professionals wanted to either continue what they were doing before the company I work for stepped in and took over the contract, just medical professionals saying "We've been doing this for years, and we're going to keep doing it. We don't care what you have to say regarding if you have a contract or not."

These turf wars made communication with coaches, parents, and students more challenging as he felt he was spending a large amount of time "making sure the students understood what I said, whether it's return-to-play decisions, going to see a physician, or a referral." Isabell faced the same challenge related to return to play: "We had 1 coach who said he wanted to be in charge of who can play and who can't play, and I was like, 'Excuse me. That's not your job.'"

Additionally, some ATs described frustration with the antiquated view of the athletic training profession. Logan expressed this when offering ideas to improve patient care:

> It was hard for me because I wanted to make good changes and make a difference, but I really couldn't. My immediate supervisor was a teacher at the school who was near retiring, and he's been an AT since forever, but he was very stuck in his ways. It was kind of hard for me to make any changes there.

Transition to Practice: Phenomena

The next stage of the transition process explains how the newly credentialed ATs derived meaning from the experience produced by the clash of cultures. We will depict how the causal conditions were experienced and given meaning. The data suggested that new ATs in transition experienced this clash of cultures in feeling overwhelmed by chaos, self-doubt, and fear.

Overwhelmed by Chaos. Initially, newly credentialed ATs became aware of their additional responsibilities. Emma stated:

> I was excited because I was very ready to start, but there were some times at the beginning where I was very overwhelmed. I have 75 athletes. I don't have any help really, so it was very overwhelming.

Elijah also felt overwhelmed:

> I would get [to work], and then the patients would show up to me, and [a patient] would be like, "Alright, I'm ready to do my rehab today," and I'm like, "Oh crap, I haven't even thought about what I'm going to do with you."

Lucas went so far as to describe the experience as "constant and overwhelming":

> How was I going to take care of cross-country, junior high and high school; football, junior high and high school; volleyball, junior high and high school, as a solo? I didn't have any students the first 8 weeks I was there, and they didn't really know what an [AT] was either. So it just took a little bit of time to get them to start buying in, coming in.

When situations challenged the confidence they had gained clinically as students, they also felt overwhelmed. Mia explained:

> It was a little bit overwhelming, I think, because you feel prepared in that moment, and then you see an injury for the first time, or somebody you haven't seen before, and say, "Oh crap, what do I do now?"

Mason noted, "I had trouble sleeping the first couple nights. It was right before training camp, so there was a bunch of stuff that I had to get done before all the players came back for training camp." In addition to feeling overwhelmed while trying to handle all of his responsibilities, Mason continued, "So, it was a little bit hectic, and I was nervous about messing up." With this last statement, he conveyed the self-doubt and fear that newly credentialed ATs experienced as they transitioned.

Self-Doubt and Fear. Participants frequently discussed challenges related to second guessing, feeling unsure, and questioning. James characterized one of his greatest challenges during the first year of practice as "[s]econd guessing myself, knowing that what I learned in school was not only best practice, but current, and still applicable and in the athlete's best interest." This uncertainty created self-doubt and insecurity. Charlotte remarked, "I think, at first, I was very unsure about being the sole decision maker at the place I'm at. The first couple weeks, I would really struggle like, 'Should I return a kid to play?'" Mia echoed Charlotte:

> The biggest [challenge] for me was trusting my decisions and realizing that I didn't have to run my decision by anyone. Stepping into a new role where I didn't have to do that, but also being able to trust my decisions without having to run it by anyone, being confident in what I was doing, that was a challenge for me transitioning to practice.

Elijah described the fear of making mistakes: "I'm young, so I'm worried I'm going to make a mistake with a patient and not necessarily get sued, but just mess up, since I am working with kids age 11 to 19." Olivia experienced the transition similarly and described the apprehension she felt when making her own decisions:

> I'm just being very hesitant of myself. I just have to always build that confidence, like "Okay, no, this is what is going on." I just notice myself catching myself a lot. I'm just like, "Oh, geez, is that right?" I think confidence building is a challenge I have to deal with.

Coping Strategies

The next stage in the transition process was the coping strategies used to deal with the transition. Our participants relied on a variety of techniques, which appeared to occur organically in response to their new situations. The themes that emerged were trial and error, self-compassion and self-reflection, and search for support.

Trial and Error. Participants discussed using trial and error to cope with the chaos and fear of their new positions. Both Ava and Logan deemed it "trial by fire." Ava commented: "I [would] feel like I have everything established, then I get told otherwise. So either I learn it because I know, or I'm learning it because something [went wrong] and they clarified it." Emma agreed:

> I always had a "why" for why I did something or why I didn't do something. Then if it didn't go as smoothly as I wanted it to, and then I knew I needed to change it the next time, or if it did work, I knew what to do the next time.

Emma's statement demonstrated the value the new ATs found in mistakes despite their fears. Sophia revealed: "I have experience with these specific people and this specific team, and I did make mistakes in the last year, and I learned from those, which really helps." Lucas expressed the need to be "creative" when figuring out how to do everything:

> I could definitely say, without a doubt, I've had to figure out ways to get things done just however I can, just being flexible, being able to try something and be like, "Well, that didn't work. I'm not going to keep doing it."

Logan experimented as well:

> . . . used a lot of the stuff that I learned at [previous internship] and tried it out myself and got to see what I liked and what I didn't like. Then I got a lot of good reps talking to coaches and talking to parents and dealing with insurance and dealing with different stuff like that.

Self-Compassion and Self-Reflection. Respondents coped with self-doubt and feeling overwhelmed by showing themselves self-compassion through self-reflection. Self-compassion involved kindness and forgiveness. Ava embodied the coping strategy: "[T]hat was kind of the initial first few months. I was trying to have grace with myself, just recognize that this is so completely new."

Elijah demonstrated self-compassion through self-reflection as he allowed himself to view the situation from a different perspective:

> So I think I spent my first couple months worried too much about fitting in and making sure that I knew what I was talking about, but then once I realized they hired me for a reason, some of the challenges I faced in terms of development was [sic] just, okay, now I'm on my own, making decisions by myself. I don't have someone to supervise me all of the time. So it was being confident in making those decisions and understanding that I was going to make mistakes, but they generally weren't going to be costly. So learning to accept those things in the beginning helped me to move along with the rest of the year.

Like Elijah, Mason found value in accepting his novice label and then building himself up when he described how he handled tough situations: "[I] just had to keep doing it and realizing that I will get better. I'm not dumb. I'm not incompetent. So I progressively got better."

Isabell learned self-compassion and self-reflection by watching a coach interact with athletes. She realized she was not demanding the respect she deserved as a professional:

> And we have 1 coach, and he was just—I don't want to say an inspiration, but the way he coached, I was like, "Wow. I'd like to mirror that as an [AT] and demand respect from the athletes." I was getting walked over the first 6 months, and now they know, "Don't cross this line," and "She's in charge," and stuff like that.

Search for Support. Participants mentioned the need for support, which came from many sources, throughout their transition. Isabell acknowledged the active contributions of others during times when she doubted herself clinically. She reached out to her "professors, preceptors, and clinical coordinator," whom she viewed as "mentors," stating that she felt comfortable doing so "even if it was just about emotional support. I guess there were times I was like, 'Am I meant to be doing this?' and, 'Should I be an [AT]?' They [mentors] were like, 'Yes. You know what you're doing. Be confident.'" Sophia learned the same: "From my experience, the biggest help that I got was relying on the support networks that I had, especially my mentors who were able to help me." Benjamin benefited from his support networks when it came to obtaining clinical advice. He would reach out to a former preceptor to ask, "Hey, I have a softball player that has a similar type of injury to this. Would you mind sending me over the rehab plan that we used so I can use some of those exercises?"

Of interest was the use of social media by participants as a way of seeking support. Although Sophia relied on mentors, she also used Facebook:

> I'm in some of the athletic training [Facebook] group pages, and so it might sound silly, but I really love just reading the posts on there from other people because I feel like I've learned a lot from just reading what people are posting, asking, and the communities that have built

up on there. I just keep trying to learn from people who have been doing this a lot longer than I have.

James also described the variety of support he sought, including contacting a mentor who was a preceptor at his high school rotations as a professional graduate student:

> We created a good enough bond that I can go to him and ask him questions and get clarification on things. He's the same age, but he got a head start in his schooling, so he's been in the profession for 6 years now. It's good to have somebody who I can relate to, in terms of my age and maturity, but also somebody who has so much experience already.

James also used Twitter as a way of

> Just relying on other [ATs] and what they've been through. If they've been through similar situations and how they handled it, that was a big thing. I think I would post or ask questions online, "Hey, have you guys dealt with this?" or "I'm going through this. What do you guys recommend?" A lot of that was just for my own curiosity's sake, to see what people would say or if they've been through situations similar to mine.

Outcome: Rhythm Amid the Chaos

Using coping strategies, the newly credentialed ATs found their rhythm amid the chaos. Ava recognized that she "definitely has gotten into a better rhythm and [am] just enjoying all of the opportunities that this job provides me." She found confidence in this rhythm Olivia echoed the sentiment: "I was nervous a lot, but I think that kind of goes with any new job, but I think, once I got my rhythm here at [employer's name], definitely the nerves went away."

Each participant found rhythm in a variety of ways. Mason explained, "I've gotten into way more of a rhythm with my life. I used to be pretty disorganized." Lucas similarly found planning critical: "Finally getting [a documentation routine] sorted out" helped him find rhythm. Once this occurred, Lucas was better able to manage his day:

> I come in. I get everything cleaned up and start taking care of all my disinfectant protocols and things like that at the beginning of the day. Then at the end of the day, I can get charts set up for the next day. It took me an awkwardly long time to get that figured out, even though I knew exactly what I needed to do. It's like silly things trip you up.

Elijah also found relief in rhythm as his self-reflection led him to spend more time planning:

> So I was kind of making stuff up on the fly and testing things out, but now I get home, and I sit down, and I plan stuff out. It helps quite a bit in terms of getting organized and having a flow for the next day or for the next week or so.

DISCUSSION

The athletic training literature is rich with descriptive data related to the transition to practice,[7,8,16,24] yet our study was distinctive in the longitudinal examination of the transition to practice for newly credentialed ATs. We constructed a theoretical model of the transition to practice through the systematic analysis of 14 participants living the transition experience. This conceptual model establishes a coherent framework for understanding what is often a misunderstood constellation of behavioral patterns exhibited by those transitioning to practice. This framework provides the structure to move beyond description to theory.

Clash of Cultures

The clash of cultures begins the transition process. Specifically, cultural differences exist in the expectations of athletic training students and ATs. These cultural differences reflect the distinct purposes of the clinical student and the professional AT. The primary purpose of clinical education is to provide "a logical progression of increasingly complex and autonomous patient-care and client-care experiences" so that "students can experience the totality of care provided by an [AT]."[23(p7)] Conversely, ATs' responsibilities extend beyond patient care[25] and may include additional obligations as determined by the employer. In short, clinical ATs are not paid to allow athletic training students to be the primary health care providers. However, these findings do support the conclusions of previous researchers[14,26] who suggested that having a greater breadth of clinical experiences facilitates the transition process.

The clash of cultures experienced by new practitioners creates cognitive dissonance between the expectations of clinical practice versus the reality and results of the uncomfortable experience of transition. These findings are similar to those in the nursing transition-to-practice literature.[5] Clarke and Springer[5] found that new nurses described the chaos of the shock of a "typical day" that was never typical. Moreover, new nurses experienced "stress from not knowing" related to missing something important that could result in patient harm or death and not being adequately prepared.[5] Given the similarities in the students' clinical experience and transition to practice for nurses and ATs, it seems logical that both groups would experience these feelings.

Coping with Transition to Practice

The coping strategies used by transitioning ATs in our study mirrored those identified in the current athletic training literature as well as in the nursing and physician residency literature.[2,5,6,10,27] Specifically, newly credentialed clinicians found it critical to seek support and self-reflect to ease the transition to practice.[2,5,6,10,27] It could be argued that this search for support and self-reflection is required to develop a personal community of practice. Cruess et al[6] proposed that it is the learning that occurs through social interactions that allows the voluntary joining of a community of practice for medical students. This learning process begins peripherally and allows the new clinician to identify and develop characteristics of the community (ie, the profession),[6] which suggests that the

transition to practice is a concept with significance beyond education and employers as a developmental process influenced by the entirety of the profession. Simply stated, all ATs are members of the athletic training community of practice and, therefore, play a role in the transition to practice of new clinicians.

In our proposed model, peripheral participation in the community of practice is seen in the new clinicians' search for support and internalizing of the information gained through self-reflection and expressed through trial and error. Cruess et al[6] described this internalization in their stages of the development of a professional identity in medicine, which they adapted from the Kegan stages of identity formation.[28] Cruess et al[6] stated that the responses of individuals will vary, but "serious personal negotiations" are critical to the acquisition of the new identity. Accordingly, the final stage of professional identity development manifests as

> An individual who is able to understand relationships in terms of different values and expectations. The external values of the professional become internal values. Reason is in full control over needs, desires, and passion.[6]

It is important to note that our model cites trial and error as a critical component of the transition process. Our findings mirror those of transition in other health professions and business.[29–32] This suggests that there may be value in educational processes that promote the use of trial and error when appropriate. Educational experiences in which value is placed on the errors (mistakes) made in reaching a desired outcome as opposed to the outcome itself may teach beneficial skills for the transition to practice. Error-based learning is not a new concept, as researchers[33–35] suggested that errors had a positive effect on knowledge and academic achievement and better equipped employees to manage on-the-job errors with emotionally controlled responses.

It should be noted, however, that the outcomes of error-based learning are influenced by personal beliefs and the environment. Individuals who held positive beliefs about errors and their effect on learning were more likely to have positive outcomes.[36] Moreover, a climate in which errors are viewed as a learning tool improves outcomes for students.[34] Therefore, it could be presumed that both educators and employers should communicate the value of mistakes in professional development, especially during the transition to practice. Students and new clinicians should understand that mistakes occur in clinical practice. Instead of promoting feelings of self-doubt, fear, and shame, students should be empowered by opportunities that allow for the appropriate correction of mistakes made by students and new clinicians, thereby reframing mistakes into a natural component of instead of an alternative to success.

Although our theory is not exhaustive, it is informative and aids the profession in understanding how the development of professional identity affects new AT graduates and their subsequent transition. Notably, our results indicated that discussion of the transition-to-practice process needs to move beyond the current implications related to education and employment settings and expand to the role all ATs play in the development of young athletic training professionals.

Transition to Practice: A Process

Ultimately, through the transition, new ATs find their rhythm amid the chaos. These findings are similar to those in the nursing transition literature[5] and describe the point when clinicians no longer feel that they are posing or pretending to be professionals and are able to embrace their professional identities. As such, the transition process can be viewed as a critical part of developing a professional identity. Therefore, the proposed model should be seen as a map of transition in which the goal of the educational process and employer onboarding should be to provide the tools necessary to navigate the transition process, not avoid it. Conceptually, this aligns with the result of Mazerolle Singe et al[15] that new clinicians need to live the experience of transition.

We performed this study to better understand the process of transition and build a viable theoretical model to explain the process. Through this work, we identified what is often thought to be dysfunctional behavior as a normal part of personal and professional development. As such, it is a process that should not be minimized or eliminated but understood. Our findings provide a framework for the reevaluation and adaptation of educational and employment processes to help the individual develop the necessary skills to transition successfully.

Limitations and Areas of Future Research

Although these findings have expanded our understanding of the transition to practice for new ATs, several limitations of our work should be considered. The goal of the study was to develop a general theory that represented the broader process of transition. As is frequently the case in qualitative research, the results are unique to the investigators and participants. From a quantitative perspective, small sample sizes commonly limit generalizability, but given the inductive nature of qualitative research, this is not the case here. Future researchers may wish to explore the transition process in specific specialties or settings to determine if differences exist. Additionally, investigators should evaluate the efficacy and efficiency of educational and organizational mechanisms identified as supporting the transition.

CONCLUSIONS

We have provided a theory and framework through which the transition to practice for newly credentialed ATs can be better understood. This theoretical framework offers insight into the causal conditions that create the phenomenon of transition to practice with consideration given to the context and intervening conditions. Increasing the confidence of newly credentialed ATs by supplying them with resources and support may limit negative feelings and the detrimental effects of self-doubt and fear. Using the coping strategies of trial and error, self-reflection, and search for support throughout the education process may allow newly credentialed ATs to find their rhythm amid the chaos of their new positions.

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