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Understanding the Athletic Trainer's Role in the Return-to-Learn Process at National Collegiate Athletic Association Division II and III Institutions

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Context: Postconcussion, student-athletes should return to the classroom using a gradual, stepwise process to ensure that symptoms are not exacerbated by cognitive activities. The National Collegiate Athletic Association (NCAA) has mandated that its affiliated institutions develop return-to-learn (RTL) policies to support the return to the classroom.

Objective: To investigate athletic trainers' (ATs') perceptions of their role in the RTL policy development and implementation at NCAA Division II and III institutions.

Design: Qualitative study.

Setting: Individual phone interviews.

Patients or Other Participants: Fifteen ATs (age = 40 ± 11 years, clinical practice experience = 16 ± 9 years, employment term = 9 ± 9 years) representing NCAA Division II (n = 6) or III (n = 9) institutions.

Data Collection and Analysis: Interviews were transcribed verbatim and checked for accuracy by the principal investigator. A 2-member data-analysis team independently coded a portion of the transcripts and then met to discuss the codebook. The codebook was applied to the remaining transcripts, confirmed, and externally reviewed.

Results: Five themes emerged: (1) approach, (2) collaborative practice, (3) patient advocacy, (4) institutional autonomy, and (5) barriers. Policies must allow for an individualized, evidence-based approach through facilitated, active communication among members of the RTL team and the student-athlete. Collaborative practice was described as key to successful policy implementation and should include interprofessional collaboration beyond health care providers (eg, educating academicians about the purpose of RTL). The RTL process was triggered by a specific member of the RTL team, usually a medical doctor or the head AT. Participants noted that the purpose of the RTL policy was to advocate for the student-athlete's successful postconcussion outcomes.

Conclusions: For the development and implementation of a successful RTL policy, strong communication and interprofessional practice must extend beyond health care professionals. Members of the health care team must establish a network with academic partners to develop a policy that is appropriate for the institution's available resources and the needs of its student-athletes.

Key Words: concussion management, academic accommodations, collaborative practice

Key Points

- Athletic trainers' frequent interactions with student-athletes makes them ideal providers and patient advocates to identify a student-athlete's need for academic accommodations as part of the postconcussion recovery process.
- The athletic trainer should serve as a facilitator of the return-to-learn policy, advocating for the care of the student-athletes as they transition between the care of health care providers (physicians, athletic trainers) and academic support services.
- Collaborative practice with other health care providers and academic stakeholders can blend professional cultures and knowledge, resulting in better-quality patient care. To effectively manage the return-to-learn policy, team members should be identified in advance, and all members should contribute to policy development.

The rise in concussion incidence has become a major public health concern, with an estimated 1.1 to 1.9 million sport-related concussions occurring in the United States each year.[1,2] In a 2015 epidemiologic study[1] across 25 National Collegiate Athletic Association (NCAA)–affiliated sports teams, the overall concussion rate was 4.7 per 10 000 athlete-exposures. Compared with previous years, the incidence of sport-related concussions in the collegiate student-athlete population has increased, especially among specific sport team populations.[1]

A full recovery after concussion requires recovery from both physical symptoms and cognitive impairment.[3] Cognitive recovery after concussion is not a linear process and does not always correlate with the timeline for recovery of physical symptoms.[3] Oftentimes, new symptoms, both physical and cognitive, develop later in the recovery process.[4] Concussion management has largely focused on

implementing gradual, stepwise progressions for patients to return to activity or return to participation (RTP).[3] A lesser focus has been placed on considerations for returning to the classroom or other cognitive activities.[5,6] Student-athletes who return to academics without physician-approved return-to-learn (RTL) strategies risk recurrence of symptoms or prolonged recovery.[7] *Return to learn* is the specific plan implemented to ensure a gradual, stepwise program for returning student-athletes to the classroom and other cognitive activities postconcussion.[3]

It is important to consider the effects of concussion on student-athletes because they are not only preparing for RTP in sport but also for participation in cognitive activities related to academic coursework. Student-athletes who have sustained a concussion should use a slow and graduated return to classroom activity to allow for adequate healing and limit the exacerbation of symptoms due to the cognitive demands of academic activity.[7] In the 2016 consensus statement issued by the International Conference on Concussion in Berlin,[3] the gradual return to classroom activity is described as a 4-stage process beginning with light cognitive activity at home and building to full academic activities. Previous research[4] has indicated that 18% of student-athletes reported a decline in academic performance postconcussion. Additionally, approximately half of student-athletes experienced a recurrence of symptoms after returning to activity and academics.[5] To add to the complexity of concussion management, student-athletes with a history of concussions may have prolonged symptoms and require more days of rest than those who have sustained only a single concussion.[5]

The athletic trainer (AT) is often the first line of defense in concussion management for the student-athlete from the time of injury to RTL or RTP, including the day-to-day management of student-athletes recovering postconcussion.[8] The educational background of ATs prepares them for the complicated nature of concussion management.[9] Developing and implementing a comprehensive concussion-management policy is a prime concern for ATs practicing clinically.[8] Athletic trainers reported that they felt they played an important role in successful and appropriate implementation of RTL and RTP.[10,11] Previous investigations[10,11] in the secondary school setting indicated that ATs believed they should be included in the RTL process, but they often felt they lacked important resources, such as education on appropriate academic accommodations, access to specialized health care providers, and the financial resources to support their efforts.

Recent researchers[5,10–13] studying RTL policy development and implementation for collegiate student-athletes mainly focused on participants in the NCAA Division I setting. This setting commonly provides greater access to a variety of resources to support student-athletes, including increased staffing and funding.[6,14] Division I institutions often have large, diversified health care teams to address the needs of their student-athletes.[5,6] These health care teams can consist of multiple physicians trained in specialized fields, including neurotrauma and neuropsychology.[5,6] In comparison, the smaller Division II and Division III institutions are often understaffed and may have limited access to trained specialists in concussion management.[6] The purpose of our qualitative inquiry was to determine how ATs working in NCAA Division II or III institutions perceived their role in RTL policy development and implementation.

METHODS

Research Design

We used a phenomenologic qualitative inquiry design. *Phenomenology* explores the lived experiences that are common to a group of people or those who share a specific area of interest.[15,16] We administered a demographic questionnaire and conducted and analyzed qualitative, individual interviews using the phenomenologic tradition to evaluate the lived experiences of ATs in regard to RTL policy development and implementation at their respective institutions.

Participants

Eligibility criteria were employment as an AT at the Division II or Division III collegiate level in a lead or supervisory position with responsibility for clinical oversight (eg, supervising AT, head AT, director of sports medicine, lead AT). Athletic trainers at NCAA Division I institutions were excluded as the group had been previously studied.[5,17] Furthermore, ATs employed at National Association of Intercollegiate Athletics–affiliated institutions or community and junior colleges were also excluded as they are not governed by NCAA policies. Eligible participants were identified using the publicly available Web sites of every NCAA Division II and Division III institution. E-mail addresses, acquired from institutional directories of schools matching the inclusion criteria, were used to recruit participants. In total, 750 ATs, representing 750 NCAA Division II and Division III institutions (Division II = 305, Division III = 445), were identified as eligible participants. This study was approved as expedited research by the Indiana State University Institutional Review Board.

Instruments

Semistructured Interview Guide. We used a semistructured interview guide containing 9 questions for each interview (Table 1). The interview guide was developed by 2 members of the research team (L.M.R., C.W.B.) and was reviewed by a third member of the research team (L.E.E.). With permission from the authors, we modified our interview guide from an earlier interview protocol.[11] Pilot testing was completed to analyze the appropriateness of the interview script. The principal investigator conducted the pilot test by interviewing 2 ATs working at NCAA Division I institutions using the interview guide. These individuals were selected because they were under the governance of the NCAA and, therefore, understood its expectations but would not be among the sample participants. After the pilot interviews were completed, the principal investigator asked the pilot test participants to comment on the appropriateness of the questions. The pilot-test participants confirmed that the questions were appropriate to the intention of the research and that the interviewer was not leading with follow-up questions. The data from the pilot tests were not included in the final analysis.

Table 1. Interview Script[a]

1. Please describe your view of the purpose of RTL policy or process?
   a. Academic accommodations?
2. Please describe how your institution developed the RTL policy you currently use?
   a. Who was involved in its creation?
   b. Did you use the NCAA checklist to guide your policy?
   c. Did you use the NCAA list of potential contributors?
      (1) Which contributors did you use?
   d. How often is it reviewed for effectiveness?
      (1) How is this assessment completed?
3. Please describe the RTL policy and procedures or protocol?
   a. How is a student-athlete identified as needing accommodations as identified in the RTL protocol?
   b. Discuss how communication is initiated with individuals involved in the RTL process.
      (1) Who initiates this process?
      (2) Who is responsible for follow-up?
      (3) What resources are available to student-athletes postconcussion?
4. Please provide an example of a patient encounter you've had where a student-athlete you were providing care for entered into the RTL protocol after a sport-related concussion?
   a. What was your role in the RTL process?
   b. Who was involved in the concussion management and academic accommodation teams?
5. Please discuss any challenges you may have experienced with the concussion management and care of a student-athlete who has been issued academic accommodations via the RTL policy after a sport-related concussion.
   a. Do you feel these challenges are unique to your setting?
6. What do you believe an athletic trainer's role should be regarding the creation and implementation of RTL policy and procedures?
   a. Academic accommodations?
7. Please discuss what factors, if any, you believe would influence the successful implementation of RTL policy at the NCAA Division II and Division III setting for student-athletes after sport-related concussion.
8. What strategies do you feel would be useful for enhancing academic accommodations as part of concussion management and care?
9. What resources do you feel are or would be useful for enhancing the effectiveness of the RTL policy or awareness of academic accommodations in the field of athletic training?
10. Are there any educational techniques you think would be useful to help educate or reinforce the importance of academic accommodations postconcussion to athletic trainers?

Abbreviations: NCAA, National Collegiate Athletic Association; RTL, return to learn.

[a] Items are presented in their original format.

Procedures

Recruitment E-mail. Eligible participants were sent an introductory e-mail requesting participation in the research investigation. We used Qualtrics (version XM; Provo, UT) to distribute a brief recruitment e-mail to learn about potential participants and guide individual interviews. The e-mail included a URL link that provided access to the informed consent document, basic demographic questions (7 items: 5 items regarding participant information and 2 items regarding information about the institution), and a request for contact information if they chose to participate. On receiving contact information, the principal investigator e-mailed the participant to schedule a convenient interview time. The interview was conducted by the principal investigator as a digitally recorded phone call using Zoom Meetings (Zoom Video Communications, Inc, San Jose, CA). Only audio files (MP3) were captured during the interview process. Interviews were transcribed verbatim by an external transcriptionist and checked for accuracy by the principal investigator. Participants were given access to the completed transcript to determine the validity of their responses via member checking. The participants were given the opportunity to contact the principal investigator to change or update their responses. Data saturation occurred when the research team began to identify repetitive themes that emerged from the completed interviews and no new themes. Data saturation was achieved after 15 interviews.

Data Analysis and Integrity

The interview data were analyzed by the data-analysis team using a phenomenologic approach.[15,18] The team members (L.M.R., L.E.E.) read the transcribed interviews and noted general facts and significant statements. Axial coding was completed on 5 transcripts provided by the principal investigator. The data-analysis team members shared notes and compared findings to create a codebook. The principal investigator used this codebook to complete coding on the remaining interview transcripts. The codes were confirmed by the second member of the data-analysis team before being sent to the other members of the research team for review.

Once coded, the codebook and all 15 interview transcripts were sent to the internal reviewer (E.R.N.) for audit. The internal reviewer was knowledgeable about the study's methods and data-collection procedures but did not directly code the data. The purpose of the internal review was to establish trustworthiness of the codebook. Through interview review, we determined that RTL barriers should be a theme rather than a subtheme because of its dominance. Coding was reevaluated and adjusted to recognize the emergent themes. Next, the final coded data were sent to an external reviewer (C.W.B.) to confirm representativeness of the participant cases. The external reviewer was an expert qualitative investigator with a history of conducting research in the areas of concussion management and RTL. Thus, efforts to establish trustworthiness consisted of pilot testing of the semistructured interview guide, data analysis by multiple investigators, member checks of the interview transcripts to allow for clarification or updates to responses, and external review. The roles and experiences of the research team are described in Table 2.

RESULTS

From a list of 44 ATs who provided contact information to participate, data from the first 15 (age = 40 ± 11 years old, 16 ± 9 years of experience, 9 ± 9 years working at their respective institutions) who met the criteria and scheduled and completed the individual interviews were analyzed. No further interviews were conducted as data saturation had been achieved. These individuals represented NCAA Division II (n = 6) and Division III (n = 9) institutions. Of those interviewed, 73.3% (n = 11) were employees of private institutions and 26.7% (n = 4)

Table 2. Roles and Experiences of the Research Team

Characteristic	Researcher 1	Researcher 2	Researcher 3	Researcher 4
Role	Principal investigator; data-analysis team member	Data-analysis team member; faculty adviser	Internal reviewer	External reviewer
Research experience	Novice qualitative researcher	Expert qualitative researcher with extensive experience in various forms of qualitative inquiry	Competent qualitative researcher	Expert qualitative researcher with extensive experience in various forms of qualitative inquiry

represented public institutions. Additional demographic data are supplied in Table 3.

Five major themes emerged through analysis of the interview data (Figure): approach, collaborative practice, patient advocacy, institutional autonomy, and barriers. Additional data to support each theme are available in Table 4.

Approach

The approach theme represented how the medical staff handled concussion management from time of injury to full RTL and RTP. The participants' approach was often described as evidence driven and individualized to patient needs. The ATs perceived that their role was to facilitate patient care and actively communicate with all members of the RTL team and the patient.

Individualized. The importance of an individualized approach was mentioned by multiple participants. They described the importance of offering individualized care for the student-athletes postconcussion. The participants noted that each concussion must be considered on a case-by-case basis and care individualized according to the patient's needs at any given time during the recovery process.

Peggy discussed the importance of creating a policy that would allow for individualization: "Our legal team asked that we make it more vague to allow us to use our judgment and to really individualize whatever return-to-play or return-to-learn protocol we needed to follow for the individual." She stated that this was important to allow for necessary adjustments to each student-athlete's level of progress throughout the postinjury process.

Facilitated by AT. Communication was commonly discussed as part of the approach theme. Communication was described as an important tool in every step of the process to achieve successful implementation of the RTL policy. Courtney remarked, "Our goal is to decrease stress for the student-athlete and then also the communication between the faculty and the student and the medical staff so that everybody's on the same page."

The AT was often the person initiating communication and following up with the involved parties throughout the process. In response to the interview question regarding who initiates communication for RTL after a student-

Table 3. Interview Participant Demographic Information (N = 15)[a]

Pseudonym	Age, y	Gender	Title	National Collegiate Athletic Association Division	Public or Private Institution	Years of Certification	Years at Institution
Allen	53	M	Director of sports medicine	II	Public	31	4
Apollo	35	M	Director of sports medicine or assistant professor	III	Private	14	5
Brice	32	M	Director of sports medicine	III	Private	10	1
Brock	32	M	Head athletic trainer	III	Private	10	8
Chase	60	M	Head athletic trainer, athletic health care administrator, adjunct professor	III	Private	23	4
Claire	54	F	Head athletic trainer	III	Private	33	31
Courtney	42	F	Head athletic trainer	II	Private	20	13
Daisy	27	F	Director of athletic training	III	Private	3	1
Felicity	50	F	Head athletic trainer	II	Private	19	18
Jackie	34	F	Head athletic trainer	III	Public	10	5
James	34	M	Assistant athletic director or director of sports medicine	II	Public	12	8
Jeannine	41	F	Assistant athletic director for sports medicine	III	Private	16	10
Kylie	30	F	Head athletic trainer	II	Public	7	5
Landon	26	M	Head athletic trainer	II	Private	5	2
Peggy	52	F	Director of athletic training and sports medicine	III	Private	29	26

Abbreviations: F, female; M, male.

[a] Age (40 ± 11 years); gender (males = 7 [46.7%], females = 8 [53.3%]); Division (Division II = 6 [40%], Division III = 9 [60%]); public or private (public = 4 [26.7%], private = 11 [73.3%]); years of certification (17 ± 9 years); years at institution (9 ± 9 years).

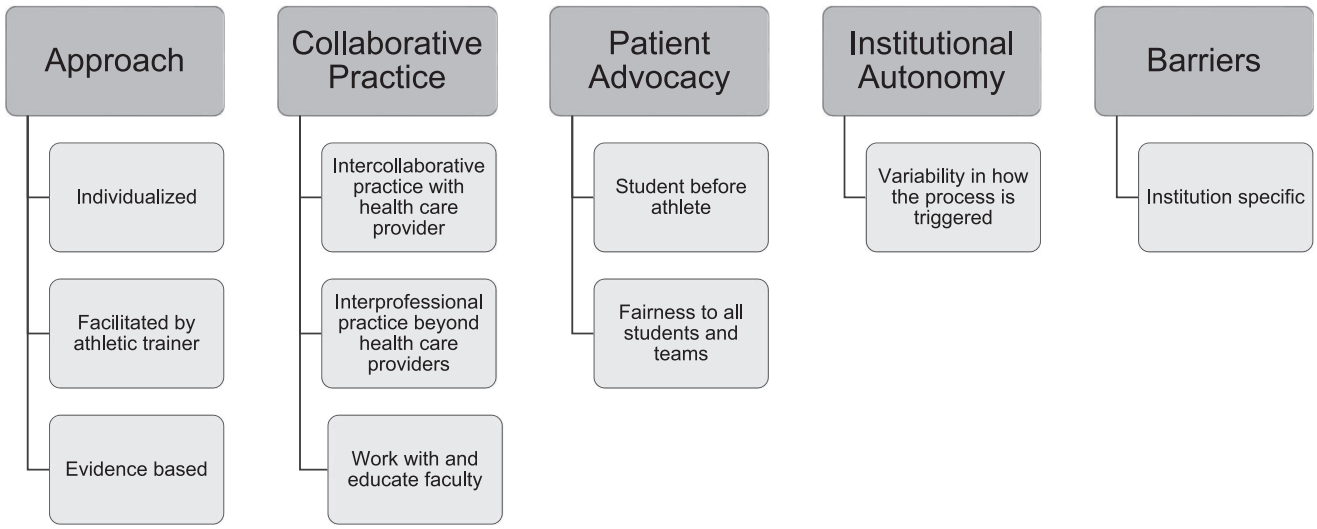

Figure. Emerging themes and subthemes from participant interviews related to return-to-learn policy development.

athlete has sustained a concussion and requires academic accommodations, Brock responded, "It's my assistant and me. We are going to perform the eval[uation], and send a letter to the professors and our disability services coordinator." The facilitative role was mentioned by many of the participants and indicated the AT as the main contact with the patient and the one updating others involved in the RTL process.

Evidence Based. An evidence-based approach was discussed as the AT performed research to determine best practices for concussion management and RTL during the development of the policy. An evidence-driven approach was also referenced by those who were pursuing quality improvement of their policy by looking at its history of success or failure.

All participants took slightly different approaches to reviewing their institutional policies, but most used the review as an opportunity to address problems that occurred when the policy had been activated. James reported, "Typically we look at all of our policies every year... I sit down with him [the faculty athletic representative], and we'll look at it [RTL] to make sure nothing has changed on campus or if there's any parts of the policy where we had any complaints throughout the year."

Collaborative Practice

Collaborative practice encompassed building and educating a concussion-management and RTL team that included health care providers and academic resources. Collaborative practice was described as a key component for the successful development and implementation of the RTL policy.

Intercollaborative Practice With Health Care Providers. Participants commonly included other health care providers in developing and implementing the overall concussion-management process. Many discussed collaborating with a directing or coordinating physician. Landon collaborated with his team physician throughout the concussion-management process:

> Once our staff suspects a concussion, we complete an initial evaluation and ImPACT testing. Depending on the results of these, if either one presents a red flag, they are immediately sent to the doctor's office. ...Our team doctor will see them multiple times, and he and I communicate on a daily basis when we are dealing with an athlete with a concussion. We use our standard concussion protocol, and when they have completed the protocol, we determine if they will see the doctor again before returning to play.

Other ATs collaborated with health care providers such as on-campus health centers (eg, nurse practitioners), psychologists, or other specialists (eg, neurologist).

Interprofessional Practice Beyond Health Care Providers. Collaborative practice also included working to bridge barriers and educate the faculty and stakeholders about the importance and purpose of RTL policies and procedures. These interactions included interprofessional collaborations with individuals outside of the health care professions, such as faculty and academic support staff.

Jeannine explained her school's policy: "The Dean of Students' office was involved, the Student Health Services, Disability Support Services, the athletic director at the time, who is now the VP for student affairs, and the head athletic trainer, and then our team physician, that's who originally came in on that."

Although not every participant listed the same collaborative group members, all ATs described an RTL team that contained health care professionals and members from academic offices. These resources included offices of academic accommodations, offices of disability services, faculty athletic representatives, the provost, and the president of the institution. Nonacademic resources listed were campus health services (nurse), office of student life, counseling or mental health services, and faith counselors (clergy).

Like many other participants, Claire talked about the importance of building relationships across campus:

Table 4. Results: Participants' Quotes to Support Themes. Extended on Next Page

Return-to-Learn Policy Implementation and Development		
Approach	Collaborative Practice	Patient Advocacy
[Individualized] "When student-athletes sustain a concussion, everybody's body is going to deal with that differently. So, everybody needs an individualized return to learn. Where some people can sustain a concussion and be okay academically, as far as being able to do their schoolwork with, maybe just need some hints about how to modify things, like taking some breaks. Whereas some students need a lot more formal monitoring where their concussion symptoms and the way their body's reacting won't allow them to be a successful student." — Felicity [Facilitated by athletic trainer] "As the designee you need to be strong. You also need to be a good facilitator and know people to call and not be afraid to call and know your role. My job is to call people. I'm not a physician. I make sure everybody knows their job. So, an athletic trainer needs to be somebody who is strong. Because you're going to be held accountable." — Claire [Evidence-based practice] "I did a lot of research with regards to other return-to-learn protocols, and back in 2013 is when it first kind of came on to my plate, so, I mean, it was in the grassroots of bringing about the return-to-learn protocol that we use." — Jackie [Evidence-based practice question I] "We look at how quickly people are getting back. If we're starting to notice that there are issues being raised by professors or if we're having athletes who are not returning as quickly as we're used to, we'll look at the protocols." — Kylie	[Intercollaborative practice with health care provider] "If anybody has prolonged symptom[s] or severe symptoms, we have 2 physicians that specialize in concussion that we would either consult or refer to." — Peggy [Intercollaborative practice with health care providers] "Students are identified as needing accommodations through assessment with our doctor." — Allen [Intercollaborative practice beyond health care providers] "I'm fortunate to be really close with our [faculty athletic representative], [we] are pretty good friends on campus. And I know that if we ever get any pushback in regard to any athletic policies most of them are going to go through him. A lot of our communications with stuff that comes from academic comes from him. Often I'll sit down with him and we'll look at it [return to learn], and make sure nothing has changed on campus, that he knows about, that I don't know about, or if there's any parts of the policy where he had any complaints throughout the year." — James [Intercollaborative practice beyond health care providers] "Actually, talking to the professors [has been helpful]. The faculty athletic rep, our academic support person, and I did a PowerPoint presentation where professors could come in and ask questions. To really help them understand so that they could get the importance of it because that was such a huge problem we were having. And I have not seen nearly as many issues." — Kylie	[Student before athlete] "The purpose of the [return to learn] is to make sure that the student-athletes are able to focus appropriately for what they really came to college for, per se, which is the academic side." — Brice [Student before athlete] "We are an academic institution. There's no question, how our professors feel, how our administration feels, and how we [sports medicine] feel. So if a student-athlete is put in a situation where they cannot concentrate, or they cannot focus, that's a big deal to us. That's something we are putting in our highest priority. So once I find that if a kid comes to me and says, 'I feel great, but if they use a PowerPoint presentation or if the lights go on and off or I'm in a certain lab and I can't take the lighting,' we make that phone call right away and we try to make as many adjustments as we can." — Claire [Student before athlete] "I'm really trying to help them be successful, and get their degree, and not fall behind, lose their scholarship, have to drop out of school." — James [Fairness to all students] "They have started to use it [return to learn] for the student life department. The student affairs offices has used it for academic accommodations." — Brice [Fairness to all students] "Return-to-learn policy isn't just for athletes but it's for anybody that might be having some type of struggle period from illness, or concussion, or something — Chase

> I think because we are a small [institution] and I do think the athletic trainer has to go out, and you have to build relationships. I think that because we have built relationships with other departments that things can go a little smoother. If you're in a place where you haven't taken the time to build those relationships, I don't know if the other side of campus would respect what you have to say.

Building rapport with academic departments and stakeholders led to more reported success with implementation.

The ATs called on the faculty athletic representative (FAR) to support collaboration between the athletic and academic offices. Participants Brice, Courtney, and Brock consulted with their institution's FAR to develop their policies. Other ATs relied on the FAR when professors were not allowing students to modify classroom activities under the protection of the RTL policy. The FAR was described as an access point for the AT to collaborate with faculty and a knowledgeable voice of support when the purpose of the RTL policy came into question.

Work With and Educate Faculty. Education to emphasize the importance of the RTL policy aimed at the campus community was commonly mentioned and cited as a key to successful implementation. Kylie stated that she gave a presentation to the faculty on concussion-management practices and the institution's policy:

> Actually, talking to the professors [has been helpful]. The faculty athletic rep, our academic support person, and I created a PowerPoint presentation, where professors could come in and ask questions, to really help them understand the importance of it [RTL policy] because that was such a huge problem we were having. I have not seen nearly as many issues [since implementation].

Participants who specifically included educational components for academic personnel felt that they were more successful in RTL policy implementation.

When discussing academic accommodations or academic modification related to a concussion, the ATs reported various ideas about their roles. Some thought the ATs should be active participants in determining appropriate

Table 4. Extended From Previous Page

Return-to-Learn Policy Implementation and Development	
Institutional Autonomy	Barriers
[Variability in trigger] "I automatically put them into that [academic accommodations], because if they're missing 48 hours, even if it's on a weekend, then they weren't able to study for that weekend. And I made them shut down for 48 hours, so they weren't able to study for that test. They weren't able to work on that presentation or that homework assignment. So we automatically throw them into that return to learn just because I have yet to see someone it doesn't affect." — Kylie	"Other challenges include I'm not at the point here at [institution] where these professionals on the academic side that will communicate with me because there really isn't a platform right now ... I hope to develop one." — Apollo
[Variability in trigger] "What we did last year, and what we're going to do this year is, any student-athlete who suffers a concussion, we're going to automatically put them into the return-to-learn protocol." — Brock	"Initially when we started with the return to learn, our major challenges were professor compliance and professor cooperation as well as athletes complying." — Kylie
[Variability in trigger] "Every athlete is put into it. I think we originally skipped a couple thinking they wouldn't need it and then later they came back and said, 'I should have had these accommodations; this is why I failed.' So we'd rather put everyone in and if they don't need it then we can figure that out versus skipping." — Jeannine	"Well before we had the formal instructional modification sheet that was sent directly from the doctor, probably the biggest challenge was professors paying attention and assisting us with our requests, which is why we got everything more formal; it's why the instructional modifications come directly from the doctor, not from one of my staff because that way there is a lot less question as to the legitimacy of what's happening, so that was one of the big challenges, was professors. It's still a challenge; we've had people on instructional modifications and professors have threatened to fail the student." — Felicity
	"The initial [problem is] getting faculty on board. I think it depends on the institution that you're at and the support that you have. The athletic training profession, it's still not necessarily regarded by many as a medical profession because they don't understand the profession and why we would be involved." — Courtney
	"Really at the lower institution, the smaller institutions, because they're understaffed and underpaid. I mean, you just get bombarded. And you're doing the best you can, but the level of care falls off tremendously." — Allen
	"Getting the faculty to understand the full effects of this was difficult. We have received a lot of great feedback when we had to implement this with professors that are a little bit more educated about concussions. But there's also some pushback as well, professors felt like, 'Excuse me, everybody needs to be in class, I don't care if they have a concussion, or an injury, or whatever the case may be, they need to be in class.' When those situations develop, in that pushback, we have to think, okay, are we doing everything that we need to be doing?" — Jackie

changes to cognitive workload, whereas others thought this task was best delegated to academic support or disability services. The participants said that identifying campus resources to support academic accommodations for student-athletes was important to the success of the RTL policy. Apollo commented:

> In this situation, I'm part of the team that may not grasp the full understanding of what return-to-learn strategies or accommodations are appropriate and why and how to deploy them, how to monitor them, that kind of thing. So, again, I think the purpose is, it's in the best interest of the student-athlete, to not only keep their best interests, but to inform those that oversee the academic load, that there's potentially something wrong here that [may] affect them in the classroom.

Patient Advocacy

Patient advocacy was described as protecting the student-athlete's rights to reenter the classroom at a slow and gradual pace to reduce symptom exacerbation and ensure successful academic outcomes. The ATs felt the main purpose of developing and implementing an RTL policy was to protect the student-athletes as they returned to their coursework after a concussion. They made it clear that their role in the RTL and RTP processes was to advocate for the patient. Apollo noted, "I believe the purpose of return-to-earn strategies is to be patient centered, so we can curtail academic load accordingly, depending upon the symptoms, so that they can remain successful in the classroom, you know, not fall behind and that sort of thing." The participants indicated that the patient is a student first, an athlete second. They also stated that the accommodations for RTL were as important as those for RTP.

Student Before Athlete. The idea of the patient being a student first was a reoccurring sentiment in all interviews. Many reported that their job was to protect the student from the negative repercussions of returning to the classroom too soon. The participants also said that student-athletes would not RTP until they had successfully returned to the classroom.

Daisy said, "We really try to hone [in on] getting them back to class first, and I've told the professors there will be times that RTL will line up with RTP in some cases, but you will never see an athlete on RTP before RTL." The idea that the collegiate student-athlete's main purpose was to obtain an education was echoed throughout the responses.

Fairness to All Students and Teams. Fairness to all students was also frequently cited. This referred to a uniform application of the RTL policy to all student-athletes, and in some cases to all students, regardless of participation in athletics. The Department of Student Life at Brice's institution was also using the RTL policy for non–student-athletes. Advocacy for all student-athletes, regardless of team, was also described by Felicity:

> We modified that [baseline testing procedures are] now include[d for] all teams. The NCAA suggested a baseline only for certain sports, and last year I took over our swimming team and had 3 concussions in the first few weeks. Swimming is not on the list of sports that the NCAA recommended for baseline concussion testing. So, at the beginning of this school year, we have decided to test all incoming freshmen athletes, regardless of sport.

The consensus among the participants was that the AT should serve as an advocate for the patient throughout the concussion-recovery process. This applied not only to the RTL protocol but also to RTP.

Institutional Autonomy

Institutional autonomy included the AT's perception that the institution had the ability to prepare a concussion-management plan that was feasible, considering campus resources and allowing variability in who would trigger the start of the RTL protocol.

Variability in How the Process Is Triggered. Institutional variability was reported when participants discussed who triggered the request for academic accommodations. The AT, the coordinating medical director or other physician, academic support services (office of accommodations for disabilities), and even the student-athlete were among those who initiated the RTL policy and process. In most cases, the AT consulted with a physician trained in concussion care during the concussion-management process.

Felicity noted that at her institution, "If a student-athlete sustains a concussion [serious] enough that they need any academic modifications, then they automatically have to see the team physician, and then the team physician will complete an instructional modification sheet."

The RTL protocol is often triggered as part of this consultation, directly by either the physician or AT. Other institutions implement academic accommodations immediately for any student-athlete who sustains a concussion. This procedure was echoed by other participants as a change they intended to make for future implementation. Currently, policy guidance does not specifically dictate who should be included, but the RTL team can determine when to initiate the protocol based on resources and clinical judgement.

Barriers

Barriers included any hindrance to the successful development or implementation of the RTL policy. Each institution overcame multifaceted barriers in the initial development and pursued a collaborative effort and education of the faculty and academic stakeholders to move policy implementation forward.

As Apollo commented, "There's a gap in knowledge with some people that are nonmedical in nature. In this situation, I'm part of the team that may not grasp the full understanding of what return-to-learn strategies or accommodations are appropriate and why and how to deploy them or how to monitor them."

Other barriers to participants were a lack of financial resources, a small athletic training staff to coordinate all aspects of the RTL policy, and lack of access to other necessary resources.

Lack of communication was a common barrier described by ATs. Lack of communication often led to difficulty in contacting adjunct faculty and not feeling respected by the academic community.

Apollo said that his university's professors did not currently have a communications platform under their current policy: "Unfortunately, I'm not at the point where the professionals on the academic side will communicate with me because there really isn't a platform right now ... I hope to develop one."

Another frequent barrier was "buy in" from professors when attempting to implement the RTL policy. Jackie talked extensively about the disconnect between academics and athletics and how this affected her ability to advocate for the student-athlete: "getting faculty to understand the full effects [of concussion] was difficult... we got a lot of pushback; faculty felt students needed to be in class regardless of concussion or injury." Felicity found that formalizing the policy helped to address some concerns but barriers persisted.

DISCUSSION

We conducted this phenomenologic study to investigate RTL policy development and implementation in NCAA Division II and Division III institutions and the AT's role throughout this process. Our main finding was that supervising ATs at NCAA Division II and Division III institutions considered the collegiate AT vital to developing and implementing the RTL policy. The approach to initiating a policy varied by institution but was often facilitated by the athletic training staff and followed evidence-based practice guidelines. The ATs perceived their role primarily as an advocate for the patient to safely RTL and RTP. Each institution had identified a specific person to trigger the RTL protocol, often the AT or a directing physician. All participants identified barriers to successful implementation of RTL at various stages of the process. A larger body of research exists for RTL in the NCAA Division I and secondary school settings[5,10,11,17]; however, similar patterns seemed to emerge as we investigated concussion-management and RTL practices in the NCAA Division II and Division III collegiate settings.

Need for Patient Advocacy

Although concussion-management policies have been standardized for consistency, the actual patient care must be individualized to meet the specific needs of the student-athlete throughout the recovery process. This care must transcend the walls of the athletic training facility and sport and encompass mental health and academic, social, and family life. Concussion management requires that each patient receive care that follows best practices but is also patient centered. The National Academy of Medicine defines being *patient centered* as the ability to "identify, respect, and care about patients' differences, values, preferences, and expressed needs; relieve pain and suffering; coordinate continuous care; listen to, clearly inform, communicate with, and educate patients."[19] Domains of patient-centered care include coordination of care, emotional support, physical comfort, involvement of the family, continuity, and transition and access to care.[19]

Concussion symptoms and recovery can be unique and vary from student to student.[14] Research[13] has indicated that collegiate student-athletes self-reported symptom and cognitive recovery at approximately 6 days postconcussion. After experiencing a concussion, the student-athlete's ability to perform normal daily tasks is altered.[20] A loss of executive function is associated with concussive events.[20] Executive function is responsible for the synthesis of external stimuli,[20] so a loss of executive function can lead to problems with attention span, decreases in the speed of information processing, delays in visual and verbal memory, and an inability to perform or focus on multiple tasks at one time.[20] Deficits related to a loss of executive function tend to be most prominent in the first 5 days postinjury and then gradually return to baseline levels.[20] These cognitive deficits could lead to poor performance in the classroom, thereby affecting the student-athlete's academic livelihood. When the student-athlete sustains a loss of executive function, the AT needs to serve as an advocate. The AT can work with academic resources departments to ensure that the student-athlete is making decisions appropriate for the recovery process. This will allow the student-athlete to return to cognitive activities at a rate conducive to healing without exacerbating symptoms or hindering academic success. When a concussion does not follow the standard recovery process, the AT must handle the adjustments based on the student-athlete's signs and symptoms and individual progress.[14] The participants in this study recognized the need for an individualized patient care plan. They described processes that gave them the autonomy to develop an RTL policy that allowed them to meet each patient's unique needs.

Campus-Wide Education

A major theme reported in the RTL literature[11,13] was the value of education on the purpose of and need for academic accommodations or adjustments as part of the student-athlete's return to the classroom. Education has been identified as a means of emphasizing the importance of a slow, gradual return to all activities and showing how concussion symptoms can affect a student-athlete in the classroom. The ideas expressed by the ATs aligned with suggestions that the goal of RTL is to support students in keeping up with academic demands without overstressing cognitive function and worsening symptoms.[12] Identifying and addressing the student-athlete's need for academic accommodations could save the student from poor performance and even failed coursework as a result of concussion symptoms.

Related RTL literature[12] described the AT as well positioned to be the primary source of education about concussion recovery for the student and others involved in the RTL process. Suggested educational topics include information about concussion incidence, symptoms, concussion (neurocognitive) testing, RTL, and RTP.[12] One of the major barriers was the need to educate faculty. The AT must develop meaningful education for all members of the campus community who may interact with the student-athlete after a concussion. However, ATs may not be best suited to determine specifications for implementing academic accommodations, and this has been discussed in current research at the secondary school level.[11] A previous author[12] addressed the importance of collaboration and suggested coordinating the efforts of educators, school health personnel, counseling services, parents, team and primary care physicians, and the student-athlete to develop an individualized plan for the RTL or RTP process.

Collaborative Practice

The value of collaborating with other health care professionals and with professionals outside health care (eg, student life, academics) has been discussed.[11] One of the key themes to emerge from this study was the importance of collaborative practice and use of available resources. These resources should include other medical professionals as well as academic professionals and stakeholders. The participants reported that these collaborations were vital to the successful implementation of RTL policies and to successful student-athletes' outcomes after injury. As described in the World Health Organization's Framework for Action on Interprofessional Education and Collaborative Practice,[21] "collaborative practice happens when multiple health workers from different professional backgrounds work together with patients, families, caregivers, and communities to deliver the highest quality of care. It allows health workers to engage any individual whose skills can help achieve local health goals."

Collaborative practice is best established by coordinating members of the care team who share goals, resources, and responsibility for the patient.[22] In the case of the student-athlete, this must include members of the health care team but also various professionals from academic offices, including (but not limited to) the office of disability services, faculty, representatives from student life, and academic administrators. Collaboration can be fostered by focusing on the shared goal of protecting student-athletes and ensuring that they return to academics and sports in a manner that will optimize healing and success.

Collaborative practice can blend professional cultures and knowledge that can in turn improve the quality of patient care.[23] To effectively manage the RTL policy, members of the team will need to be identified in advance, and all members should contribute to policy development. The ATs in this study noted both positive and negative attributes of collaboration. Keys to effective collaborative practice included identification of roles, members feeling

their role is important to the final goal, open communication, autonomy of the various members of the group, and equal distribution of resources.[23] The NCAA mandated that its members develop and submit policies for RTL and RTP and required that a "point person" be assigned to concussion management.[24] The policy must maintain compliance with the American with Disabilities Act Amendments Act of 2008. The NCAA provided a list of potential contributors to the RTL policy.[25] They suggest a multidisciplinary team that can include, but is not limited to, a team physician, ATs, psychologist or counselor, FAR, academic counselor, office of disability services, and coaches.[24] Although the list is extensive, many participants reported using only those resources immediately available to them within their respective institutions. The policy should precisely identify and explain the roles of the individuals involved. This is especially important when identifying who will trigger the RTL protocol. The trigger role should be an established member of the health care team, generally a physician or head AT. That person should be given unquestioned authority to make decisions regarding overall concussion management, including initiation of the RTL protocol. Consistency in roles and actions within the health care team will lead to better standardization of the process for institutions with resource limitations. Barriers to collaboration can include poor communication about the importance of and need for an RTL policy. The AT should develop a plan to educate any person who may be involved in the care of the student-athlete postconcussion. Although collaborative practice is preferred, when not properly managed and implemented, it can become detrimental to the success of student-athletes.

Institutional Resources

From the viewpoint of the institution's NCAA member status, the purpose of institutional autonomy is to allow the institution to operate using its available resources while adhering to the ground rules set by its governing bodies.[24] The institution must be allowed to develop policies that align with NCAA membership guidelines but are also feasible based on the available resources.[24] As described by ATs in this study, educational resources may vary from institution to institution. For RTL to succeed, the institution should analyze its available academic resources to determine which departments and offices can assist in developing and implementing the RTL policy. In evaluating disparities in available athletics budgets through the various levels of the NCAA divisions, we see that Division II and Division III institutions have less access to funding, equating to more than 10% fewer funding dollars.[6] The difference in funding is one reason to allow autonomy in policy development and implementation, as it can mean restrictions in staff hiring and funding to purchase testing equipment. Limited staff often means a limited number of individuals to monitor and follow up on the concussion-management process, including the RTL policy. For smaller institutions, the ability to operate autonomously means that each institution can manage every student with equitable resources.

Quality Improvement

Barriers to successful implementation vary from institution to institution. The information gained from this study should help those still in the process of formalizing their RTL policy to avoid common barriers cited by the participants. Certain barriers will still exist, such as a lack of financial resources and adequate staff; however, the AT who is able to identify on-campus resources and delegate ownership of the various components to those best suited to complete them will allow the AT to focus on patient care. Initial barriers should be documented and reviewed periodically as part of a quality improvement process.[26] For quality improvement processes to succeed, information must be available for analysis and reflection.[26] Most institutions review and assess the effectiveness of their policies on an annual or semiannual basis. Developing a sound approach to protocol assessment is crucial to determining ways in which the policy may need to be adapted in the future. Return-to-learn policies will require members from academic departments and the health care team to work together to review and revise the policy based on experiences with implementation. It should be noted that poorly planned or implemented interprofessional collaboration could lead to negative effects on patient care and subsequently the patient.[23]

LIMITATIONS

A common limitation of qualitative research is the possibility of interviewer bias. Although we attempted to control this by completing external reviews of the interview script and the data, it is still possible that the interviewer's personal bias affected the interviews. Not all participants' institutions had fully established RTL policies in place. As this is a new requirement (2016), it is possible that the data collected were representative of only a single time in practice, and they should be studied again after programs have had time to build and improve their RTL policies to ensure generalizability. The barriers that led to limited success of an RTL policy as described by the participants require further examination to determine their roots. Future researchers should pursue a line of questioning specifically directed at understanding barriers to success; ideas for overcoming those barriers would have allowed us to understand how RTL policies have evolved over time.

Those implementing RTL policies should periodically conduct critical reviews of enacted policies to determine effectiveness as part of a quality improvement initiative. The information from critical review or quality improvement initiatives could offer an opportunity for future researchers to emphasize the need for quality improvement and disseminate effective strategies to complete the process successfully.

CONCLUSIONS

Athletic trainers are often the first to recognize concussion symptoms and are a part of the daily follow-up throughout the concussion-management process. Their frequent interactions with student-athletes make them ideal providers and patient advocates to identify the student-athlete's need for academic accommodations as part of the recovery process. The AT should pursue education specific to the implementation of RTL policies.

To develop and implement a successful RTL policy, strong communication and an interprofessional approach beyond the health care field are necessary. Members of the

health care team must establish a network with academic stakeholders and other partners to develop a policy that is appropriate given the institutions' available resources and patients' needs. The team should determine which resources are available to enhance the quality and success of the RTL process, and widespread campus education regarding concussion and institutional concussion-management policies should take place. An evidence-based approach to concussion management should be implemented from the time of injury to the time of full RTL and RTP. The AT should facilitate the RTL policy, advocating for the care of student-athletes as they transition between health care providers (physicians, ATs) and academic support services. Strong policies and consistent communication will lead to high-quality, patient-centered care and improved outcomes for student-athletes.

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