

Athletic Trainers' Reasons for and Mechanics of Documenting Patient Care: A Report From the Athletic Training Practice-Based Research Network

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Context: Documenting patient care is an important responsibility of athletic trainers (ATs). However, little is known about ATs' reasons for documenting patient care and the mechanics of completing documentation tasks.

Objective: To understand ATs' perceptions about reasons for and the mechanics of patient care documentation.

Design: Qualitative study.

Setting: Individual telephone interviews with Athletic Training Practice-Based Research Network members.

Patients or Other Participants: Ten ATs employed in the secondary school setting (age = 32.6 ± 11.4 years, athletic training experience = 7.1 ± 7.8 years) were recruited using a criterion-based sampling technique. Participants were Athletic Training Practice-Based Research Network members who used the Clinical Outcomes Research Education for Athletic Trainers electronic medical record system and practiced in 6 states.

Data Collection and Analysis: We used the consensual qualitative research tradition. One investigator conducted individual telephone interviews with each participant. Data collection was considered complete after the research team determined that data saturation was reached. Interviews were transcribed verbatim and independently analyzed by 4 research

team members following the process of open, axial, and selective coding. After independently categorizing interview responses into categories and themes, the members of the research team developed a consensus codebook, reanalyzed all interviews, and came to a final agreement on the findings. Trustworthiness was established through multiple-analyst triangulation and member checking.

Results: Participants identified 3 reasons for documenting patient care: communication, monitoring patient care, and legal implications. Four subcategories emerged from the mechanics-of-documentation theme: location, time of day, length of time, and criteria for documenting. The ATs described different criteria for documenting patient care, ranging from documenting every injury in the same manner to documenting time-loss and follow-up injuries differently.

Conclusions: Whereas ATs recognized individual mechanisms that enabled them to document patient care, they may need more guidance on the appropriate criteria for documenting various patient care encounters and strategies to help them document more effectively.

Key Words: health care administration, electronic medical record, secondary school setting, CORE-AT EMR

Key Points

- Athletic trainers identified several reasons for documenting patient care: enhancing communication, monitoring patient progress, and ensuring legal protection.
- Athletic trainers employed various documentation strategies comparable with those of other health care professionals, such as using electronic medical records and spending a similar amount of time documenting.
- Documentation practices that may be unique to athletic trainers included recording in various locations and using inconsistent criteria for documenting.
- Accurate patient care documentation is important for characterizing athletic training practice and demonstrating the value and effectiveness of athletic training services.
- Clinicians should use professional guidelines and state practice acts to guide patient care documentation and apply various strategies to fit this documentation into their work environments and schedules.

Documentation is an important aspect of the patient care provided by athletic trainers (ATs). The roles and responsibilities of ATs as health care providers are outlined by the Board of Certification (BOC) in *The 2009 Athletic Trainer Role Delineation Study*¹ and *BOC Standards of Professional Practice*²;

National Athletic Trainers' Association (NATA) in *Athletic Training Education Competencies*, 5th edition³; and state practice acts. These resources explain that ATs are responsible for maintaining patient records and documentation to provide quality patient care. In *Documentation and Coding Guidelines for Athletic Trainers*,⁴

the NATA provided additional information, such as guidelines for what types of information should be included and why.

Whereas the NATA and BOC have provided guidelines and expectations for documenting patient care, little is known about the actual patient care documentation that ATs perform. In other health care professions, including medicine, nursing, and pharmacy, investigators have examined the time spent documenting various aspects of patient care using electronic medical records (EMRs).⁵⁻⁷ Physicians spent nearly 25% of their time documenting patient care, which can be so time consuming as to impede direct patient care.^{5,6} These other health care professionals are also typically situated in hospital and pharmacy settings, which are quite different from the usual collegiate and secondary school athletic training environments.^{5,7} Even facilities, budgets, staffing, and administrative structures may vary within the same type of athletic training practice setting, such as secondary schools.⁸

Quality patient care documentation by health care professionals is important for both clinicians and patients.^{7,9} Although many health care professionals document patient care because of legal obligations,⁷ physicians, nurses, and pharmacists have noted additional benefits of documenting.^{5,6} Effective documentation facilitates communication among health care professionals, enabling continuity of care for patients.^{5,7} Clinicians can also use documentation to evaluate the effectiveness of their patient care, which can then be used to demonstrate ATs' value and worth as health care professionals.⁹

Similar to other health care professionals, ATs have a professional responsibility to document patient care.² Both they and their patients can benefit from the additional reasons for documenting, including communication, continuity of care, and characterizing clinical practice.^{5,6} To date, no researchers in athletic training have provided the details of ATs' patient care documentation practices in the secondary school setting. Therefore, the purpose of our study was to examine ATs' reasons for and mechanics of patient care documentation in the secondary school setting. We sought to understand the documentation practices of ATs using the Clinical Outcomes Research Education for Athletic Trainers (CORE-AT; A.T. Still University Athletic Training, Mesa, AZ; <http://www.coreat.org/electronic-medical-record.html>) EMR system. Learning ATs' approaches to documentation will help us understand how ATs work within the professional expectations to document patient care.

METHODS

Design

We used a consensual qualitative research (CQR) approach to conduct this study. The CQR takes perspectives from multiple members of the research team to obtain the most well-rounded descriptions of the data.^{10,11} Specifically, multiple researchers interpreted the ideas and opinions expressed by the ATs participating in this study so the research team could come to a consensus about the most accurate interpretation. A CQR process with a larger number of investigators can also help diminish the potential

Table 1. Participant Demographics

Participant Pseudonym	Sex	Experience as Athletic Trainer, y	Type of Secondary School	Position Affiliated With a Clinic?
Baker	Male	3	Public	No
Blynn	Female	6	Public	No
Carter	Female	27	Private parochial	No
Heron	Female	10	Public	Yes
Lang	Male	11	Public	Yes
Lund	Female	6	Public	Yes
Murphy	Female	3	Public	No
Peters	Male	2	Public	Yes
Stalter	Male	1	Public	Yes
Taylor	Female	2	Public	Yes

bias that each researcher might bring to the investigation.¹⁰⁻¹²

Participants

We recruited participants using specific criteria. This criterion-based sampling method helps researchers identify potential participants who have insight on the topic of interest.¹⁰ Therefore, individuals were recruited if they were ATs who were members of the Athletic Training Practice-Based Research Network (AT-PBRN), were employed at secondary schools in the fall of 2013, and had been using the AT-PBRN-affiliated EMR for at least 6 months. The mission of the AT-PBRN is to improve patient outcomes and the quality of care provided by ATs.¹³ As of December 2015, the AT-PBRN included more than 100 ATs practicing in the secondary school, college/university, or clinic settings across 21 states and the District of Columbia. All AT-PBRN members are provided access to a free, Web-based EMR (ie, CORE-AT EMR) to use as their primary mode for documenting their patient care. Before gaining access to the CORE-AT EMR, all ATs must undergo a standardized 2-hour training session. The information provided during the training session has been previously described by Valovich McLeod et al.¹³

Typically, CQR methods advocate including 10 to 15 participants to achieve data saturation.^{10,11} We invited 43 individuals who met the predetermined criteria to participate in the study, and 10 ATs initially volunteered to participate. After initial data collection and analysis occurred with the first 10 interviews, the research team confirmed that data saturation, or stability,¹⁰ had been achieved. The participants (age = 32.6 ± 11.4 years, athletic training experience = 7.1 ± 7.8 years) received last-name pseudonyms to maintain their anonymity (Table 1). All participants provided written informed consent via e-mail and oral consent before their interviews, and the institutional review boards of A.T. Still University and Chapman University approved the study.

Instrumentation

Open-ended questions posed in interviews and questionnaires are a staple of the CQR method.^{10,11} Our open-ended questions followed a semistructured approach, which ensured that we asked all participants the same core set of questions while allowing for flexibility in each conversation.^{10,11} Given the lack of an existing interview

protocol regarding ATs' reasons for and mechanics of patient care documentation in the secondary school setting, the research team developed a semistructured interview protocol. It consisted of 15 open-ended questions along with potential probing questions that could be asked when the principal investigator (C.E.W.B.) deemed it necessary (Table 2). After the initial protocol was reviewed, pilot interviews were conducted with 3 ATs who met some of the inclusion criteria of the study. All 3 pilot interviewees were members of the AT-PBRN; however, 2 individuals were employed in the collegiate setting, and the third had just enrolled in the AT-PBRN at the time of the interview. The pilot interviews provided the research team with an idea of the potential data they might obtain during the interviews and allowed them to restructure questions for clarity, if necessary.

Procedures

The principal investigator contacted potential participants who met all inclusion criteria via e-mail. In the initial e-mail, she identified the purpose of the study, provided participants with her contact information, and asked if they would participate in the study. Individual telephone interviews were conducted due to the geographically diverse locations of the participants. A 30- to 40-minute telephone interview was scheduled after the participant provided consent. We sent another e-mail to participants, instructing them to complete and return a brief demographic questionnaire. The investigation began in August 2013 and continued until data saturation was achieved for all questions (November 2013).

One research team member (B.L.E.) transcribed the audio files of all interviews. Any identifying information (ie, names, schools, locations) was redacted by this team member to maintain the confidentiality of each participant.^{10,11} After a transcript was completed, a copy was sent to the participant for respondent validation, or member check.¹⁰ During the member-check process, we instructed participants to not change or retract any of the information provided but noted that they could provide additions or clarifications.

Data Analysis and Management

Given the CQR design used for this study, a research team consisting of several members was critical. The team dynamic is essential for limiting researcher bias as different perspectives and opinions become apparent during data analysis.^{10,11} Four ATs (S.L.N., T.M.K., B.L.E., C.E.W.B.) composed the primary research team for this investigation, 1 AT (K.C.L.) acted as an internal auditor, and 1 AT (not an author) represented the external auditor. The qualitative research experience and association with the AT-PBRN of the primary research team and internal auditor are displayed in Table 3. Whereas the primary research team examined most data to analyze it, the auditors also played a crucial role, checking the team's work to ensure that all views had been considered and the data were genuinely represented.^{10,11} Before data collection, the principal investigator, who had expertise in the CQR process, conducted a training session to ensure that all research team members were familiar with CQR data analysis and

Table 2. Interview Protocol Questions With Probes^a

1. Tell me about your background as an athletic trainer.
2. Please discuss what patient care documentation means to you.
 - a. What does documenting patient care mean to you?
 - b. What does documenting athletic training services mean to you?
3. What are your perceptions of patient care documentation in athletic training?
4. Describe your typical work week at the secondary school during the academic year.
 - a. When does patient care documentation occur?
 - b. Where does patient care documentation occur?
 - c. How much of your work week is dedicated to patient care documentation?
 - d. Are there specific patient care documentation requirements at your secondary school?
5. What are your perceptions of your own patient care documentation behaviors?
6. What are the primary reasons you document patient care?
 - a. How do you decide what to document or what not to document regarding patient care?
 - b. Please describe your process for documenting an initial injury versus documenting follow-up care.
7. How do you think documentation could be useful for patient care?
 - a. Please explain.
8. In what ways, if any, do you use your patient care documentation to influence your actual patient care decisions?
 - a. Do you have any type of systematic approach to documenting your patient care?
 - i. Please explain.
9. What barriers, if any, do you believe clinicians have toward patient care documentation?
 - a. Follow up to determine if the barriers identified are ones they personally have.
10. In what ways, if any, do you feel you could refine/evolve your patient care documentation behaviors?
11. What aspects of your clinical practice, if any, would you change to enhance your patient care documentation behaviors?
12. Please discuss other patient care documentation mechanisms, if any, you currently utilize or have previously utilized in your clinical practice prior to CORE-AT.
 - a. Please discuss what aspects, if any, of your patient care documentation behaviors have changed since you switched to the Web-based EMR.
13. What strategies do you feel are/would be useful for improving patient care documentation in the field of athletic training?
 - a. Are there any educational techniques you think would be useful to help educate or reinforce the importance of documentation in athletic training?
14. Is there anything else you would like to add about patient care documentation, the Web-based EMR, or your personal clinical experiences?
15. Are there any questions or topics I have not asked about that you would like to discuss?

Abbreviations: CORE-AT, Clinical Outcomes Research Education for Athletic Trainers (A.T. Still University Athletic Training, Mesa, AZ; <http://www.coreat.org/electronic-medical-record.html>); EMR, electronic medical record.

^a Protocol is provided in its original format.

management. Training suggestions provided by Hill et al^{10,11} were incorporated throughout the session.

Data analysis occurred in 4 stages: (1) identifying initial code domains, (2) extracting core ideas from each domain, (3) cross-analyzing multiple participant interviews via development of categories, and (4) establishing the frequency of data presented in the determined categories.^{10,11} To identify the initial code domains, each research

Table 3. Roles and Experiences of the Research Team

Role and Experience	Researcher				
	1	2	3	4	5
Study role	Principal investigator and research team member	Research team member	Research team member	Research team member	Internal auditor
Qualitative experience	Experienced qualitative researcher with extensive background in consensual qualitative research	Experienced qualitative researcher	Experienced qualitative researcher	Novice qualitative researcher	Novice qualitative researcher
Association with Athletic-Training Practice-Based Research Network?	Yes	No	No	No	Yes

team member identified key words from the first 3 transcripts. Next, they grouped the key words based on similarities and gave these groups titles, which represented subcategories. The team reconvened to discuss the identified subcategories. A consensus was reached on which subcategories existed within the first 3 transcripts, and similar subcategories were grouped together to form themes. These themes became the consensus codebook that would be used for all transcripts. The team again individually coded the first 3 transcripts, now using the consensus codebook, and reconvened to reach a final consensus on the coding of the first 3 transcripts. The research team then coded the remaining transcripts using the final consensus codebook. During this process, the internal auditor coded 2 transcripts to ensure that all perspectives were being considered.^{10,11} At this time, we also confirmed that data saturation, or stability, was achieved and no further data needed to be collected.¹⁰ After transcript coding was completed, the research team selected 3 to 4 participant cases per category that most accurately represented the overall theme. The patient case-selection process and subsequent frequency counts were conducted as outlined by Welch et al.¹²

RESULTS

Six themes emerged from the interviews. We focused on 2 themes in this study: reasons for and mechanics of documenting patient care. In part II of this study,¹⁴ we focused on the perceptions of and barriers to documentation. Each theme consisted of several categories. The themes and categories, including participant responses that represent each theme, are described in detail in this section.

Table 4. Participant Cases by Category

Theme	Category	Frequency	Participant Cases, No.
Reasons for documentation	Communication	General	10
	Monitor patient care	General	10
	Legal implications	General	9
Mechanics of documentation	Location	General	9
	Time of day	General	10
	Length of time	General	10
	Criteria for documenting	General	10

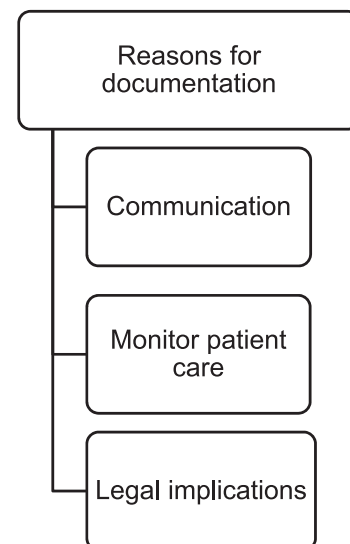
The frequency counts for each category as defined by Hill et al¹⁰ are presented in Table 4.

Reasons for Documenting

Three categories emerged from participants' responses about their reasons for documenting patient care: communication, monitoring patient care, and legal implications (Figure 1).

Communication. The ATs described that they documented patient care to communicate with other clinicians, patients, and parents. Carter stated that documenting patient care helped her communicate with other clinicians who were also caring for her patients:

It's helpful if I have certain exercises or certain things I'm working on with an athlete that 1 of my assistants can see what I didn't follow up and say to the patient, "Oh, remember this? He did this yesterday with [patient name]." So it makes consistency when there are different people. So that person could get into my record and see what I was working on and then pick up and have that person continue with those exercises and then change depending on what the new clinician wants to do. I like

**Figure 1. Reasons for patient care documentation.**

that everyone can pick up where somebody else left off and go from there.

Lund commented that she thoroughly documented concussion cases because several health care providers were involved in patient care:

A lot of my concussion cases, those are very thorough. That's because there are [a] lot of providers involved. There is myself, and then they have to go see their family physician. They might have to have a report sent to the concussion clinic in the area, and then they have to have their final sign-off by the school medical director. So those are always extremely thorough because there are a lot of people looking at them, and they need all of the details.

Participants also noted that they documented to communicate with patients and their parents. Peters provided an example of how he referenced his documentation when communicating with the parents of his patients:

So that is a way for us to educate parents and say, "Listen, this is what we've done. This is what we are going to do." Especially for some patients later in the year, they didn't show up for rehab[ilitation], or they didn't show up for concussion stages; we are able to call the parents and say, "Listen, we have all of this documented. I can send this to you to show that we've told your kid to be here at this certain date." So that was helpful for patient cooperation and compliance as well.

The ATs explained that this communication with other health care professionals helped improve the quality of care they provided to their patients. Blynn expressed how documentation systems that facilitate communication among health care professionals help improve care:

I think just making sure that care is easily communicated should it need to go to another clinician, to a physician, something like that. . . I think, and especially with online documentation, some programs or some software you can just send a message, or you can just click on that patient note, and it's in there. I think, [in] bigger hospitals, you just have 1 system between several departments, and it's easy to share information. It gives [patients] better care.

Baker made a similar comment related to communication and consistency of patient care:

[Without documentation], it's tough to get consistency of care. . . the person [patient] sees the physical therapist. Then [the patient] comes to me once their insurance runs out. So I feel like that, if there was a good documentation system. . . or if there was a way that [other health care professionals] could communicate easily with me through my documentation, that the consistency of care that these patients need could be achieved.

Monitoring Patient Care. In addition to communicating with other individuals, participants said that an important

reason for documenting patient care was tracking patient progress and guiding care. Lund described how documenting her interactions with patients helped her get to know them and reminded her of their care:

It's useful because we are seeing multiple patients on a daily basis. A lot of those patients require follow-up periods, and documentation allows us to know the story for each patient and not have to backtrack and recap. So it's useful in that you [are] getting to know your patients, you are remembering their conversations, which leads to better care. It really saves time so you are not sitting there going back through everything again with someone that you saw a couple days ago because you have it all documented.

Similarly, Stalter found that patient care documentation helped him keep track of the hundreds of athletes he treated regularly:

My primary reason is so that I know, day in and day out, what that athlete has already done, what I'm going to do next. I'm the only [AT] at the site, and with the 160-plus athletes I see during each different season, I sometimes have a hard time keeping those athletes straight, especially if I have 2 with similar injuries. So the biggest thing for me is just keeping those protocols in place and knowing where I'm at with each athlete so I know what to do next.

In addition to tracking their patients, several clinicians portrayed patient care documentation as the foundation for monitoring their patients' progress during treatment. Documentation allowed Lang to monitor whether his patients were improving and alter their treatment accordingly:

I will look at the documentation, and I look at a lot of the criteria there as far as "what was their pain level before, and what is it today?" So that can tell me a lot as far as "are we gaining, or are we losing?" If we're not gaining or they are staying the same, then I may have to change up the patient care. I may have to look at, if we are not gaining anything here after a certain amount of time, maybe something else is going on, and I'll have to refer them to a physician or physical therapy or something like that.

Similarly, Murphy explained her process of documenting a patient encounter and using this information to guide the future care of her patient:

Based a lot on treatment and how they felt, when I look at what I am doing and ask them how they feel that they are doing and if they don't feel that something is working and I don't necessarily know for sure that that is working, then I maybe eliminate some things or add some things by process of elimination or trying something different because, if something isn't working, I'm not going to consistently use it if I don't feel it's working.

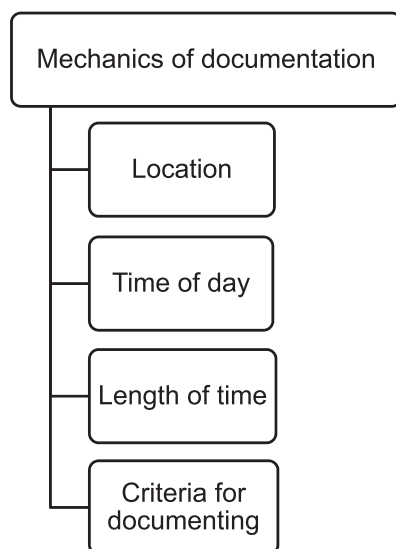


Figure 2. Mechanics of patient care documentation.

Legal Implications. Lastly, several participants described legal protection as an important motivator for them to document. Baker stated that legal protection was the most important reason he documented: “I mean, there’s definitely legal reasons, you know, covering myself as a clinician, covering my school. You know, liability wise, that’s the main reason that I document.” Heron said that legal protection was the second most important reason for documenting, after tracking patient care: “Secondly is for legal purposes and to make sure that what I’ve done or what I haven’t done is in a medical document to help protect myself and the athletes if anything were to happen.”

Mechanics of Documentation

In addition to providing their reasons for documenting patient care, ATs illustrated how they document patient care. Four categories emerged from this theme: location, time of day when they documented, how much time they spent documenting, and what criteria guided their patient care documentation (Figure 2).

Location. During each interview, clinicians were asked to depict where their patient care documentation occurred. Most participants reported a combination of different areas, typically including their offices, homes, or mobile locations. Baker communicated that, whereas most of his documentation occurred in his office, sometimes it extended to his home:

I try, and I would say about 95% of the documentation is done in my office. There might be a day where I have a late game or something like that, like a Friday night football game where I don’t get out of there [until] later. I’ll take it home and do it at home or do it early the next morning, but 95% of it is done in my office before I leave at night.

Lang completed his documentation wherever it was convenient because he used mobile devices. When asked where he documented, he said, “Everywhere, wherever I have a chance. I have a laptop that I carry, and then [1 of

the schools] has a computer set up on a counter for me as well.”

Time of Day. Participants were asked when they typically completed patient care documentation. Similar to the location answers, participants took a multifaceted approach to fitting it into their day. Some participants, including Heron, tried to limit their documentation time to a certain part of the day, such as at the end of one day or the beginning of the next day:

Typically, as far as documentation goes, sometimes depending on the day, I am able to get my documentation done while I am covering practice, but a lot of times, I get to school early in the morning before I teach my class and document from the day before. The formal time I set aside is typically the next day, in the morning before I teach classes.

Other participants, including Taylor, tried to complete patient care documentation throughout the day:

Well, ideally, I like to try to get as much done as I can right there on the spot. Otherwise, it can just kind of pile up on you, and that’s [when] I feel like I get behind. So I try to just get it done right then and there, even though that might slow some other things down, but I guess I’ve tried to consciously make it a priority, but that doesn’t always happen. So otherwise, I tried to do it at the end of the day, which obviously can slow down getting home.

Like several participants, Baker often used a combined approach of taking notes throughout the day followed by thoroughly documenting the patient care at the end of the day:

As I go through the day, I will have like a note pad of paper with me and a pen, and as I go through my patient encounters, I’ll write down the name of each person that I evaluate, whether I do treatments with or whatever. I’ll make small notes underneath that name and at the end of the day for the last. . . I’ll write that below, and at the end of the day, I take my notepad and paper of patient encounters, and I’ll transfer into my CORE-AT system. The documentation is done at the end of each day.

Length of Time. Participants were asked to indicate how much of their workweek they spent documenting. Regardless of whether participants were full-time or part-time employees, ATs described spending 10% to 50% of their total work time on documentation, with most respondents spending about one-third of their total workweek documenting patient care. Some participants mentioned that injury quantity and time of year influenced the amount of time spent documenting. When asked about the amount of time she spent documenting, Murphy noted:

Right now, I don’t have very many injuries, so it’s more just logging in. Maybe 10 to 20% [of my time] I guess, maybe more on the 10% side, but sometimes there’s a lot more to do.

Taylor, who was a part-time AT, said, “Of the 15 hours that I work, I would probably say [I spend] at least an hour

a day [documenting], so maybe 3 to 5 hours a week.” Lund explained why he spent the most time documenting of all participants:

I spend easily 50% of my time documenting because I document everything. That’s because I have had multiple occasions where an athletic director will just walk into my office and be like, “So-and-so called me today,” and not for any particular reason, he will just pull the file, and there it is. So a huge chunk of my time goes to documentation.

Criteria for Documenting. Participants were asked several questions about their approach to documentation and how they determined what patient care to document. They identified several principles that guided their patient care documentation: injuries that required follow up, injury severity, injuries that resulted in missing participation time or referral, and lack of criteria for documenting.

One of the important criteria they considered when determining when to document a patient interaction was the necessity of a follow up with the AT. Blynn observed:

So I think my rule of thumb or what I used to tell my students was, if it is something that you told them to come back tomorrow or you think you’re going to see them for that week with consistent care and are looking for changes, then that’s something we should document. At the very least, everybody should have an initial either evaluation or note that just says this patient came in complaining of whatever, and here’s what we did, and they can follow up if necessary.

Another criterion for several clinicians was the severity of the injury. Many ATs documented severe injuries more thoroughly than injuries they considered to be less severe. Peters provided an example of how he differentiated what to document based on injury severity:

If they came and said that they had been trying to play through this for the past few days, “but it’s really bothering me, [and] I need you to look at it,” that was something that I would document. If there was a major injury out on the field, that was something I documented. If they just came and said, “You know, this kind of hurts,” I would say, “Come back and check in with me tomorrow,” and if they would come in, I would ask if it was still hurting, and they would say, “No, I’m fine,” and I would just let it go.

Murphy had another basic guideline for documenting based on injury severity, “I usually document anything that keeps them out of practice for more than a day.” To compare how she documented an ankle sprain or shoulder dislocation, she predicted:

I would probably document more heavily on the shoulder dislocation because I feel like it is the more significant injury. That would also include doctor’s notes and physical therapy appointments, and if there were any instructions from either one of those, then I would include that. Otherwise, I would still do an initial

evaluation and document that and continue on. I think that might be the only difference.

Her responses were also related to the criteria of participation time missed or referral that other participants also referenced. Many participants conveyed that they documented injuries resulting in any time missed from practice or requiring referral. According to Baker, missed participation time was a qualifier for him to document an injury:

I think it’s a case-by-case scenario definitely. If that person has to miss time for practice or a game or something like along that line where they are out of practice and not participating, that’s definitely a scenario in which I will document, but I would say as of lately that’s been my reason or reasoning for documenting is are they missing time for their individual sport or whatever it be.

Whereas most clinicians described certain criteria that guided what and how extensively they documented certain patient care situations, some participants pointed out that they documented each injury the same way. Heron’s process for documenting included any patient she saw, regardless of injury was:

I use the [daily log-in] portion of the EMR to document any time I tape an athlete or do any prepractice treatment. Anytime I see an athlete for an injury or wound care or anything, I either fill out a formal evaluation or make some sort of note in the patient’s record if it wasn’t necessarily an injury that I’m going to be tracking over time. Essentially, if I see a patient or an athlete for anything other than just saying hello to them, then I try to make sure that that’s documented.

Similarly, Carter had a broader approach to documentation that included documenting each injury despite its severity:

So anybody that says she has a problem or anybody that I even touch or lay hands on in any way, I try to have some sort of document of that. . . I don’t think you should get into that trap because I think that biases your documentation. Just do the same thing for everybody.

DISCUSSION

Reasons for Documenting Patient Care

Participants discussed several reasons for documenting patient care. Their primary reasons were enhanced communication and monitoring patient care, which were similar to those cited in guidelines established for ATs.⁴ When monitoring patient care, participants recorded patients’ data to track progress in order to reference it later and use the information to guide future care. Communicating with other health care professionals, tracking patient progress, and monitoring patient care are all ways ATs can use documentation to improve patient care. To our knowledge, we are the first to examine ATs’

reasons for documenting patient care. However, other health care professionals^{5,6} have identified similar reasons for patient care documentation. Penoyer et al⁵ found that acute care clinicians, including nurses and physicians, used it to communicate among health care providers. In that investigation, most clinicians used health care documentation to assess patient progress and make treatment decisions. In a study of medical residents' perceptions of documentation, Christino et al⁶ demonstrated that, whereas residents believed that documentation could be an excessive burden on clinicians, it positively influenced patient care.

In addition to positively influencing patient care, our participants emphasized the importance of documentation for legal protection. Zierler-Brown et al⁷ pointed out that, if a patient interaction is not documented, the current legal system assumes that the interaction never occurred. Thoroughly documenting patient interactions from start to finish, including subjective and objective patient information, clinician rationale for treatment decisions, referrals, and other information recommended by professional guidelines and state practice acts, ensures that patient care is performed according to the standards of care. Incomplete or absent patient records may place health care professionals at risk for legal action.^{4,7} Our findings reinforce the need for patient care documentation in athletic training. As health care professionals, we have a responsibility and a legal obligation to document patient care.^{1,2} Documentation not only provides legal protection for ATs but also guides patient care by helping clinicians track patient progress and communicate with other health care professionals.^{4,15}

Furthermore, patient care documentation can be used to characterize athletic training practice¹⁶ and thereby demonstrate the value and effectiveness of athletic training services.^{17,18} Documenting whole-person health care should include patient-oriented outcomes or measures that consider the patient's perspective about function and health-related quality of life.¹⁹ Whereas patient-related outcome measures are included in the CORE-AT EMR, it is interesting that participants rarely mentioned recording these data or using patient-based information to guide patient care. These measures are an important component of providing optimal patient care and using evidence-based practice.¹⁹ Researchers^{19,20} have noted that athletic training has used patient-oriented outcome measures and evidence-based practice less than other health care professions. The fact that our participants rarely addressed outcome measures suggests that this continues to be a concern despite their having the outcome measures readily available within the CORE-AT EMR. The use of and barriers to using outcome measures should be further explored across athletic training.

Mechanics of Documenting Patient Care

Similar to the many unique athletic training work settings, patient populations, and daily schedules that exist, our participants described a variety of approaches to completing patient care documentation, which seemed to be chosen based on their environment, resources available, and individual preferences. Part II of this study¹⁴ includes

additional details on ATs' perceptions of how they document and barriers to documenting patient care.

Location. Our participants described documenting patient care in different environments, including their homes, offices, athletic training facilities, athletic fields, and hallways. Where clinicians documented was influenced by where they worked throughout the day and when they had time available for documenting. Documenting patient care in such a variety of settings has not been identified in the literature, perhaps because the secondary school environment is different from a traditional hospital or clinic-based environment where other health care professionals document.^{5,6} Our findings demonstrated that ATs may need to be resourceful when identifying times and locations for completing their patient care documentation.

We recruited our ATs from a group of clinicians who use a specific, Web-based EMR (ie, CORE-AT). The CORE-AT EMR, which is cost free, was designed specifically for ATs to document patient care.¹³ Our participants noted that using this EMR allowed them to document in a variety of places as long as they had Internet and computer access. Other health care professions and settings, such as pharmacy, medicine, and hospitals, that include several types of practitioners have adopted EMR systems.⁵⁻⁷ Our participants pointed out that, in addition to the patient care benefits, using the electronic system allowed them to document in and access that documentation from various locations. Athletic trainers may want to consider the benefits of recording patient information in an electronic system, particularly if they have difficulty documenting consistently in 1 location.

An important consideration related to the location of documentation is patient confidentiality. The BOC's *Facility Principles* states that ATs should maintain patient records in a secure location using a paper or electronic format.²¹ Our participants did not comment on their method for securing patient data, particularly the paper documentation used in addition to the EMR, but several noted that they documented in locations outside the athletic training facility, including athletic fields, hallways, home, and other mobile locations. Their locations for documentation appeared to be related to the barriers to documenting described in part II of this study.¹⁴ Given that clinicians perceived a lack of time to document, they often attempted to overcome this barrier by documenting in various locations. Regardless of the format of documentation, ATs should ensure they are protecting patient confidentiality according to professional standards.^{2,21}

Time of Day and Length of Time. Similar to finding different locations for documenting patient care, our clinicians described a variety of approaches to finding time to document. Whereas some blocked time at the beginning or end of each day, others documented throughout the day and blended their approaches to find time to document. Some ATs noted that when and how they documented were related to their available time and patient volume, which is described more thoroughly in part II of this study.¹⁴ Several participants completed documentation throughout the day by entering information into the EMR while interacting with their patients. This strategy is similar to that of other health care professionals, particularly nurses and acute care practitioners, who document while performing initial patient intakes.⁵ Several participants

also commented that they had their patients sign in directly to the electronic system, expediting the documentation process. Whereas our participants used the CORE-AT EMR, several mentioned that they still used paper documentation, such as writing notes throughout the day before entering them in the system. This finding is similar to the results of an informal poll conducted by Mathewson,¹⁵ who reported that half of ATs used a combination of paper- and computer-based documentation and 20% used a computer-based system exclusively. Medical residents also used paper documentation in addition to the hospital's electronic health record.⁶

Most of our participants said they spent about one-third of their work time documenting patient care. However, they gave a wide range of responses to this question, estimating that 10% to 50% of their time was spent documenting. Our findings are comparable with those of Mathewson,¹⁵ who reported that 7% of ATs spent 10% to 30%, 25% spent less than 10%, and 16% spent 30% to 50% of their time documenting. Our observations suggest that ATs perceived that the amount of time they spend documenting was similar to that of other health care professionals.^{5,6} Penoyer et al⁵ found that, depending on their specific clinical role, acute care nurses spent approximately 25% of their day documenting patient care. In comparison, Christino et al⁶ reported that 41% of medical residents spent 41% to 60% of their time documenting, whereas 37% spent more than 60% of their time documenting patient care. These findings provide insight into the daily responsibilities of ATs compared with those of other health care practitioners; however, self-reported findings of a small, specific group of participants should be interpreted with caution. In addition, without established best practices for patient care documentation by ATs, we do not know whether our participants demonstrated appropriate documentation practices.

Criteria for Documentation. We asked participants several questions to help us understand how ATs determined what to document. We observed that they did not use a consistent approach to documenting patient care. Whereas some clinicians described documenting each patient interaction, others took ambiguous approaches. Some ATs documented only injuries that required missed participation time or referral, and others said that their documentation was more thorough for severe injuries, such as concussions. Athletic trainers' criteria for documenting appeared to be related to their perceptions of and barriers to documentation, which are described in detail in part II of this study.¹⁴ With ambiguous criteria for documenting and limited time, ATs prioritized what they thought was important given their available time, resulting in a wide range of documentation practices by even our small number of participants. Ambiguity about what and how to document may lead to gaps in patient care documentation.

Our participants believed they must develop their own criteria because no specific guidelines existed for documenting patient care. However, criteria for ATs' documentation of patient care do exist. The *Documentation and Coding Guidelines for Athletic Trainers*⁴ addressed the importance and types of documentation but does not include detailed guidelines for what types of encounters should be documented and when. The *BOC Standards of Professional Practice*² broadly stated that ATs should document all services they provide, yet these standards do

not define what is considered an AT service. State laws also regulate documentation by ATs, but regulation and laws on documentation vary greatly by state.²²⁻²⁵ For example, Ohio law²² states that ATs should keep "accurate records for all areas of injury management" and provides specific examples, such as "written referrals, personal injury reports/initial evaluation, and daily care rendered/rehabilitation logs." In contrast, many states, including Wisconsin,²³ Georgia,²⁴ and Arkansas,²⁵ do not mention any form of patient care documentation within their state practice acts. State regulation of documentation practices, particularly for concussion, has been shown to increase documentation of these injuries.²⁶ However, few states specify expectations for patient care documentation by ATs.

Many participants expressed confusion about documentation criteria, explaining that they were unsure whether they should document interactions, such as providing an adhesive bandage; having a brief conversation with a patient; or evaluating a minor injury, such as a contusion. These clinicians said they were too busy or unsure of whether minor injuries or interactions needed to be documented. They identified lack of time and managing too many patients as barriers to thorough documentation, which are discussed extensively in part II of this study.¹⁴ In addition to challenges related to workload, our findings suggest that clinicians may be unaware of the available guidelines or believe the guidelines are not specific enough. Documentation guidelines for ATs are less specific and standardized than those for other health care professions, such as physical therapy, which has specific guidelines for patient care documentation provided by its national association.²⁷ These guidelines define different types of patient encounters and outline what details should be included from each encounter, supplying specific standards for patient care documentation. In addition, the Centers for Medicare and Medicaid Services²⁸ described what documentation is needed from physicians, speech-language pathologists, therapists, and other health care providers to be eligible for reimbursement. For therapy services, the *Medicare Benefit Policy Manual*²⁸ specified that evaluations, reevaluations, plans of care, progress notes, and discharge notes should justify the rationale for the care provided. Specific treatment details, including the modality provided, exercise sets and repetitions, and length of patient treatment, must all be supplied for the service to be eligible for reimbursement under Centers for Medicare and Medicaid Services guidelines.²⁸ Progress must be quantified using objective measures, such as assessment and outcome measurement tools. In comparison, the *Documentation and Coding Guidelines for Athletic Trainers*^{4(p2)} stated that ATs should document "all services provided within the format and method established by the practice setting, the agency, and any external accreditation agencies and/or by payers." Given that specific guidelines have not been established for ATs, it is not surprising that ATs approach patient care documentation with ambiguity.

Athletic trainers should refer to state laws and professional guidelines to ensure they are documenting patient care appropriately.^{2,4,15} Our participants used a broad range of strategies for documentation that they typically determined themselves, but it may be beneficial to provide more continuing education and resources to help clinicians understand appropriate patient care documentation. In

addition, ATs may benefit from more specific guidelines that define athletic training services and best practices for what should be documented in each patient care scenario. Parsons et al²⁰ also noted an absence of specific professional guidelines and advocated for 1 detailed document that describes athletic training services and techniques. Without this information, it is difficult to determine whether ATs are following best practices for patient care documentation and what should be done to guide ATs toward those best practices. Ultimately, at this time, it is each AT's professional responsibility to use the resources available to ensure that he or she is knowledgeable about and is performing patient care documentation according to state regulations and professional standards.

Importance of Patient Care Documentation in Athletic Training

High-quality patient care documentation is closely tied to the provision of quality patient care.⁷ Athletic trainers are responsible for making certain that the services they provide effectively improve the well-being of their patients.²⁰ Without quality documentation, neither an individual AT nor the profession can accurately measure the quality of the care we provide.^{18,19} Furthermore, providing quality patient care and documenting that care is necessary to demonstrate the value of AT services.²⁰ By recording patient improvement after providing services, ATs can demonstrate effectiveness as health care providers.^{16,17} In addition, documenting each patient encounter, from evaluating a minor ankle sprain to providing a therapeutic modality, shows how many and what types of services ATs provide. Demonstrating our value as health care professionals can improve athletic training's reputation and influence legislative, political, and reimbursement concerns important to the longevity of the profession.²⁰ However, demonstrating our value is challenging without high-quality patient care documentation. Therefore, we need to better understand ATs' perceptions of and barriers to documentation to continue improving this area of our professional responsibility.

Practical Applications

1. Athletic trainers should reflect on their current patient care practices to determine whether they adequately document patient interactions.
2. Athletic trainers should access available resources and guidelines regarding documentation, including the *Documentation and Coding Guidelines for Athletic Trainers*,⁴ *BOC Standards of Professional Practice*,² and their state practice acts.
3. If considering a change in documentation practices, clinicians may consider different strategies for completing patient care documentation, such as using a different format (EMRs or paper) or scheduling documentation time (regularly throughout the day or in blocks of time).
4. Athletic trainers should continue to familiarize themselves with using patient-rated outcome measures in clinical practice.

LIMITATIONS AND FUTURE RESEARCH

Our study had several limitations. We involved a small group of ATs who used 1 Web-based EMR system and are

AT-PBRN members. This limited the applicability of the findings to a larger population, particularly those who do not use an EMR system. Users of documentation systems other than the CORE-AT EMR, including other EMRs and paper documentation, may have different reasons for documenting and would be expected to have different mechanics of documentation. Researchers should address these concerns by investigating a larger group of participants, including ATs who use paper and other documentation systems. Athletic training would also benefit from understanding how clinicians working in different settings and with different experience levels may approach documentation practices in different ways. In addition, our findings were based on the self-reported perceptions of our participants. They may not have accurately reported their actual documentation practices, limiting the quality of the findings. Whereas our study provides an initial valuable assessment of ATs' documentation practices, researchers should consider observing their actual patient care documentation behaviors.

CONCLUSIONS

Quality patient care documentation is vital to ensuring that ATs are providing effective patient care and demonstrating our value as health care providers. Similar to other health care professionals, ATs identified several reasons for documenting patient care. In addition, they used several documentation strategies comparable with those of other health care professionals, such as using an EMR and spending a similar amount of time documenting. Despite similarities, we found that ATs may have unique documentation practices, such as documenting in various locations and using inconsistent criteria for documenting. Clinicians should use the resources available, including professional guidelines and state practice acts, to guide their patient care documentation and apply various strategies to fit patient care documentation into their individual work environments and schedules. Our findings provide insight into the documentation practices of ATs working in the secondary school setting. Further research is needed to determine how these practices relate to best practices in patient care documentation by ATs.

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