Journal of Athletic Training 2024;59(2):212–222
doi: 10.4085/1062-6050-0062.23

www.natajournals.org

Organizational Expectations Regarding Documentation Practices in Athletic Training

Jordan S. Devenney, DAT, LAT, ATC*; Matthew J. Drescher, PhD, DAT, LAT, ATC†; Matthew J. Rivera, PhD, DAT, LAT, ATC†; Elizabeth R. Neil, PhD, LAT, ATC‡; Lindsey E. Eberman, PhD, LAT, ATC†

*Center for Sports Medicine and Performance and †Department of Applied Medicine and Rehabilitation, Indiana State University, Terre Haute; ‡Department of Health and Rehabilitation Sciences, Temple University, Philadelphia, PA. Dr Drescher is now with the Department of Health, Nutrition, and Exercise Sciences at North Dakota State University.

Context: Although guidance is available, no nationally recognized standard exists for medical documentation in athletic training, leaving individual organizations responsible for setting expectations and enforcing policies. Previous research has examined clinician documentation behaviors; however, the supervisor's role in creating policy and procedures, communicating expectations, and ensuring accountability has not been investigated.

Objective: To investigate supervisor practices regarding support, hindrance, and enforcement of medical documentation standards at an individual organization level.

Design: Mixed-methods study.

Setting: Online surveys and follow-up interviews.

Patients or Other Participants: We criterion sampled supervising athletic trainers (n = 1107) in National Collegiate Athletic Association member schools. The survey collected responses from 64 participants (age = 43 ± 11 years; years of experience as a supervisor = 12 ± 10; access rate = 9.6%; completion rate = 66.7%), and 12 (age = 35 ± 6 years; years of experience as a supervisor = 8 ± 5) participated in a follow-up interview.

Data Collection and Analysis: We used measures of central tendency to summarize survey data and the consensual qualitative research approach with a 3-person data analysis team and multiphase process to create a consensus codebook. We established trustworthiness using multiple-analyst triangulation, member checking, and internal and external auditing.

Results: Fewer than half of supervisors reported having formal written organization-level documentation policies (n = 45/93, 48%) and procedures (n = 32/93, 34%) and an expected timeline for completing documentation (n = 24/84, 29%). Participants described a framework relative to orienting new and existing employees, communicating policies and procedures, strategies for holding employees accountable, and identifying purpose. Limitations included lack of time, prioritization of other roles and responsibilities, and assumptions of prior training and record quality.

Conclusion: Despite a lack of clear policies, procedures, expectations, prioritization, and accountability strategies, supervisors still felt confident in their employees' abilities to create complete and accurate records. This highlights a gap between supervisor and employee perceptions, as practicing athletic trainers have reported uncertainty regarding documentation practices in previous studies. Although supervisors perceive high confidence in their employees, clear organization standards, employer prioritization, and mechanisms for accountability surrounding documentation will result in improved patient care delivery, system outcomes, and legal compliance.

Key Words: supervisors, electronic medical records, professional responsibility, accountability

Key Points

- Fewer than half of supervisors reported having formal written organization-level documentation policies, procedures, and time expectations for recording encounters.
- Supervisors within individual organizations have a professional responsibility to create and enforce quality and accountability regarding medical documentation policies and procedures.
- Prior training assumptions and lack of time are not justifications for allowing poor medical documentation, and supervisors must reorganize priorities to allow athletic trainers to dedicate time to documentation.
- Supervisors can help support successful documentation practices by conducting individual quality improvement projects aimed at improving areas of weakness or by implementing interventions, such as annual training and education, individual meetings, frequent documentation review and auditing, and creating a unified purpose focused on continuity of care and advocacy for additional resources.

High-quality documentation and medical records are essential for evaluating effective and efficient patient care delivery and encounter experiences.[1] Medical documentation can be used to track patient progress and help deepen a clinician's understanding of the diagnosis and prognosis of an injury or illness or adopt new strategies in care management or record-keeping strategies.[2–4] Medical record-keeping is not without its limitations, as it can be tedious and

time-consuming on top of other job responsibilities due to the data collection volume required and interface operation issues. Documentation strategies aligned with the Quadruple Aim of health care are known to reduce errors to improve population health, improve patient care effectiveness and experience, reduce costs on a per capita basis, and improve staff member and team well-being and productivity.[5,6]

Although the National Athletic Trainers' Association (NATA) has created best practice guidelines for documentation practices that emphasize professional responsibility and the advantages of appropriate documentation, such as risk mitigation, it does not provide explicit standards of practice.[7] There are no nationally recognized standards or expectations for documentation mechanics or required inclusion criteria in athletic training.[8] Research has shown that ambiguity in these policies and procedures may lead to gaps in records, inaccurate representations of athletic training services, and increased liability or decreased legal protection.[9,10] There is also no standard operating procedure for conducting documentation reviews for quality assurance. Lack of accountability and clear expectations are significant contributors to documentation challenges.[10]

Past research in medical documentation states the lack of employer expectations and accountability strategies, such as record auditing, may be connected to poor documentation practices and reduced priority.[10] Part of the responsibilities of athletic training supervisors include communication of expectations and enforcement of policies and procedures, typically through enabling and modeling.[11] Although the individual perspective on generating medical documentation is abundant in the literature,[9,10,12,13] we have not yet explored how supervisors hinder, encourage, or enforce record-keeping standards. Our study intends to shift attention away from the individual provider and investigate the hierarchical approaches supervisors use to create standards and accountability for documentation practices. The purpose of this study is to investigate existing expectations, policies and procedures, and supervisory strategies related to facilitating medical documentation.

METHODS

Research Design

We used a concurrent mixed-methods study approach using a combination of web-based surveys and follow-up interviews. This design allowed us to draw from the strengths and minimize the weaknesses of both qualitative and quantitative design types to contextualize the meaning behind the data.[14,15] Using a mixed-methods approach, we took the quantitative data of the survey and amplified the values using the voiced collective experience of current supervisors. The targeted approach allowed us to elaborate and uncover areas of content not represented in the use of 1 tool alone.[16] Before data collection, the risks and benefits of the study were explained to all potential participants, and they provided consent to participate. The Indiana State University Institutional Review Board deemed our study exempt.

Participants and Setting

We created an internal database of supervising collegiate and university athletic trainers (ATs) and their emails (N = 1107) in Divisions I, II, and III of the National Collegiate Athletic Association (NCAA) using publicly available webpages. Using the publicly available contact information, we selected individuals with titles such as head AT, director, manager, supervisor, or coordinator or individuals who otherwise indicated they oversaw the services of other ATs and sent emails through Qualtrics software (Qualtrics LLC). Of the 1107 possible participants, 106 accessed the online survey (9.58%), 5 reported they were not supervisors, and 5 did not consent. Of the 96 individuals who identified as eligible supervisors and consented to participate, 64 (66.7%) completed the survey in its entirety (survey participants' age = 43 ± 11 years; years of experience as an AT = 21 ± 10; years of experience as a supervisor = 12 ± 10). Twelve participants elected to participate in the follow-up interview (age = 35 ± 6 years; years of experience as an AT = 14 ± 5; years of experience as a supervisor = 8 ± 5). Table 1 describes the survey demographic characteristics of all participants, and Table 2 depicts specific characteristics of the interview participants.

Instrumentation

Our research team created a 24-item survey instrument based on the study's specific aims using a variation of close-ended Likert-scale questions and open-ended questions. We developed questions deductively based on findings from previous literature on documentation practices in athletic training.[9,10,12,13] We asked these participants to answer questions regarding their expectations, organizational policies and procedures, and strategies to encourage their staff to produce high-quality medical documentation. The questionnaire addressed 1 screening item; demographic items (9); medical documentation policy, preparation, and expectations (11); perception of employee competence (2); and interest in participating in a follow-up survey (1). We measured employee competence by asking for perceived confidence in policy and procedure clarity, thoroughness, and confidence in employee ability to generate complete and accurate patient care documentation. Employee competence and clarity and thoroughness were measured on a 6-point Likert scale: *strongly disagree* (1), *disagree* (2), *slightly disagree* (3), *slightly agree* (4), *agree* (5), and *strongly agree* (6).

We validated the survey using a content validity index process as described by Polit and Beck.[17] We sent the survey to a panel of 5 content and/or methods experts in survey creation, medical documentation, and/or supervision of ATs. We instructed each expert to complete a content analysis rubric for the survey, with options to select *Needs Revision* or *Sufficient as Written* and a space for additional comments to address either category. The rubric used a numeric scale to rate the relevance and clarity of each item rating, including *not relevant* (1), *item needs some revision* (2), *relevant but needs minor revision* (3), and *very relevant* (4). These values were then averaged to create a total relevance and clarity score. To deem the survey valid, we

Table 1. Survey Demographics (n = 64)

Characteristic	Mean ± SD
Age, y	43 ± 11
Years of experience	21 ± 10
Years of experience as a supervisor	12 ± 10
Number of certified ATs supervised	6 ± 5
Number of student-athletes	442 ± 172

Abbreviation: ATs, athletic trainers.

Table 2. Interview Demographics (n = 12)

	Pronouns	Division Type	Age, y	Years of Experience as a Certified AT	Years of Experience as a Supervisor	Number of Certified ATs Supervised
Participant 1	She/her	I	41	19	10	10
Participant 2	She/her	III	34	12	9	7
Participant 3	She/her	I	47	24	19	20
Participant 4	He/him	II	31	9	7	3
Participant 5	He/him	III	31	9	1	4
Participant 6	He/him	III	38	15	5	3
Participant 7	She/her	III	41	19	16	12
Participant 8	She/her	III	33	11	7	8
Participant 9	She/her	III	36	15	5	4
Participant 10	He/him	II	22	8	2	7
Participant 11	He/him	II	38	16	12	5
Participant 12	She/her	III	32	8	6	3

Abbreviation: AT, athletic trainer.

required each item to have a mean agreement of 75% for relevance and clarity. We analyzed and synthesized all feedback and required no additional rounds of review. No items needed revision or removal from the tool. The tool's scale-level content validity index score is 0.93, demonstrating excellent content validity.[18]

We used semistructured interviews to gather additional insight into the effectiveness of communication, dissemination of information, and quality of existing policies and procedures based on the quantitative information collected in the survey. The research team created an interview protocol with 7 primary questions and potential follow-up questions based on the study's specific aims and past literature using the same process described above.[10] Two individuals with experience in qualitative research and medical documentation reviewed the interview script for face validity. The interview protocol required no additional revisions. The primary investigator practiced the interview with 3 eligible individuals to assess timing and question sequencing; their data were not included in the analysis. Table 3 describes the questions used in the interview.

Procedures

Our study used email recruitment methods to garner participants. We sent initial emails to all potential participants, including the study's purpose and a survey link. We sent reminder emails weekly during the 6-week data collection period. Once participants indicated consent, they spent approximately 28 minutes completing the survey. We secured all survey responses within Qualtrics and deidentified them before downloading and saving them to a secure cloud storage site.

The last question on the survey provided participants the opportunity to indicate interest in participating in a follow-up interview. Participants who indicated interest were directed to an additional survey to submit their contact information. The principal investigator (PI) conducted all interviews, and they lasted, on average, 25 minutes. After each interview, the PI saved the deidentified transcript and audio file, using a pseudonym, to a secure cloud storage site. We sent participants a copy of their transcribed interview to ensure accuracy and instructed them to clarify and address potential concerns within 14 days. If participants did not respond within 14 days, we used their original transcripts for analysis. Only 1 participant responded requesting minor copyedits. Saturation was achieved when the PI no longer heard new core ideas during interviews. The data analysis team (3 members of the overall research team) discussed field notes and PI observations before concluding that data saturation had been achieved.

Data Analysis, Researcher Reflexivity, and Trustworthiness

We used descriptive statistics to examine demographic variables, including participant age, university setting, years of experience as a certified AT, years of experience as a supervisor, and the number of staff under supervision for the survey and follow-up interview.

Incomplete data sets are common in survey research, as this research is voluntary, and discontinued participation is the

Table 3. Semistructured Interview Protocol[a]

Interview Protocol	Tell me about your role as a supervisor.
	Describe when and how you learned to complete medical documentation.
	How are new employees trained to meet documentation standards at your place of work?
	How do you communicate your expectations for your employees completing medical documentation?
	Describe how your policy and procedures guide medical documentation.
	How do you keep your employees accountable?
	Do you review employee documentation?
	If so, how do you currently measure the quality?
	How do you think this study might inform the practice of ATs in completing medical documentation?

Abbreviation: AT, athletic trainer.

[a] Items are presented in their original format.

Table 4. Supervisor Perceptions (N = 69)

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
I am confident in the clarity and thoroughness of our documentation policy and procedures.	1% (1)	12% (8)	16% (11)	33% (23)	33% (23)	4% (3)
I am confident in my employees' abilities to generate complete and accurate patient care documentation.	0% (0)	7% (5)	6% (4)	29% (20)	51% (35)	7% (5)

participant's right, as stated in the Belmont report.[19] Because the number of respondents varied per question, we used partial data analysis techniques to manage missing data.[20] These techniques are used throughout the literature to account for potential bias and the lack of randomness with missing data.[13,21] We set the significance level a priori at $P < .05$. We analyzed all quantitative data using SPSS (version 27; IBM Corp).

We used the consensual qualitative research tradition to develop codes from the interview transcripts due to its previous use in athletic training research and medical documentation and its aptitude for in-depth analysis.[10,22,23] The data analysis team consisted of 3 individuals (J.S.D., M.J.D., L.E.E.) who ranged from novices to experts in the consensual qualitative research tradition. The 4-step process began with an inductive approach, reviewing the first 5 transcripts.[22] After, each member of the data analysis team independently reviewed these transcripts to create a domain list reflective of the data.[22] The data analysis team then met and developed an initial codebook with domains and categories.[22] The codebook was then applied to 2 of the original transcripts and 3 new transcripts to ensure an accurate representation of ideas.[22] The data analysis team met again to confirm that the original codebook was still accurate.[22] After, the PI applied the consensus codebook to all the transcripts.[22] The research team met for a final time to confirm that the codes were applied correctly across all transcripts. The PI then created a cross-analysis of all participant interviews.[22] The research team used the cross-analysis to ensure that all quotes under each domain and category had no outliers and that the placement of the quotes within each category was appropriate.[22]

After completing all steps, the data analysis team sent the interview script, consensus codebook, cross-analysis report, and coded transcripts to an external auditor (E.R.N.) to explore blind spots or selective perceptions or biases of the data analysis team during the coding process.[22] We made no changes from the review. Triangulation of the data was ensured by comparing the domains from the qualitative data with the quantitative data of the survey to examine similarities and create a comprehensive representation of the results. Research reflexivity is an expected factor in qualitative research. The PI acknowledges the potential impact of their previous experiences, assumptions, and beliefs in medical documentation while conducting interviews.[24] We established trustworthiness by using multiple-analyst triangulation, member checking, and internal and external auditing.

RESULTS

Participants supervised an average number of 6 ± 5 employees and provided services for 442 ± 172 patients in the collegiate setting. The range of employment settings varied across divisions: Division I (n = 20/64, 31.3%), Division II (n = 16/64, 25%), and Division III (n = 28/64, 43.7%). The supervisors reported being certified by the Board of Certification for 20 ± 11 years. Supervisors carried various titles, from *head AT* (n = 43/64, 67%), *director* (n =15/64, 23%), *athletic director* (n = 2/64, 3%), *AT* (n = 1/64, 2%), *associate director* (n = 1/64, 2%), *AT/health care administrator* (n = 1/64, 2%), and *both lead and head AT* (n = 1/64, 2%).

Fewer than half of supervisors reported having formal written organizational documentation policies (n = 45/93, 48%), procedures (n = 32/93, 34%), and time expectations for recording patient encounters (n = 24/84, 29%). The time expected to complete documentation ranged from no expectations to 90 days from the incident. The 22 open-ended responses from the survey included *as soon as possible* (n = 1, 4.5%), *within 24 hours* (n = 7, 31.8%), *within 36 hours* (n = 1, 4.5%), *within 48 hours* (n = 4, 18.2%), *within 72 hours* (n = 1, 4.5%), *within 96 hours* (n = 1, 4.5%), *within 1 week* (n = 3, 13.6%), *within 2 weeks* (n = 1, 4.5%), *within 30 days* (n = 1, 4.5%), and *within 90 days* (n = 1, 4.5%). Supervisors noted that their employees documented on paper (n = 2, 3%), electronically (n = 31, 48.5%), and a mix between paper and electronic (n = 31, 48.5%).

Most supervisors *agreed* (33%, n = 23) or *slightly agreed* (33%, n = 23) that their documentation policies and procedures demonstrated clarity and thoroughness. Most supervisors also *agreed* (51%, n = 69) that they were confident in their employees' abilities to generate accurate records (Table 4). A majority of the supervisors (62%, n = 38) noted having a section in the orientation specific to documentation standards. The items supervisors required employees to include in evaluation and treatment notes were variable (Tables 5 and 6).

Qualitative interview data revealed 2 domains related to supervisor practices regarding medical documentation in the collegiate setting: (1) framework and (2) limitations. Categories within the framework domain include training, expectations, accountability, and purpose. Categories within the limitations domain include deprioritization and assumptions, with prior training and quality as subcategories. The frequency of participant cases per category is displayed in Table 7.

Framework

Participants described having a philosophy around orienting new and existing employees, communicating policies and procedures, holding employees accountable by using different strategies, and identifying a clear purpose that served as a framework to organize their staff development. Approaches that supported successful documentation practices included annual training/development and education, individual meetings, frequent documentation auditing or review, and an emphasis on continuity of care and advocacy for additional resources.

Proactive Development. Proactive development for organizational documentation practices occurred upon immediate hiring in orientation, during annual training, and yearly, demonstrating a commitment to continued improvement. Participant 2

Table 5. Evaluation Note Criteria From Survey (N = 78)[a]

Tasks	Specified Inclusion
All SOAP sections filled in	83% (65)
One item reassessed every visit	15% (12)
Reasons why modality was performed is listed, if applicable	12% (9)
Specific modality parameters listed, if applicable	41% (32)
Interventions selected clearly demonstrated need for LAT skills	23% (18)
Interventions are nonroutine and nonrepetitive	6% (5)
Evidence of skilled feedback with exercises presented	12% (9)
Exercises that can be performed at home are given in home exercise programs	51% (40)
Assessment states patient's response to treatment specifically	40% (31)
Goals are reassessed every 2 to 3 visits	28% (22)
Plan lists specific ideas for next treatment	36% (28)
Modifications to treatment plan are listed	49% (38)
Communication with patient, MD, etc, is documented	79% (62)
Changes in status/restrictions noted	81% (63)
Patient/family education noted at least every 2 visits	8% (6)
Cancelled and no-show appointments listed with dates	40% (31)
Visit number (actually attended) listed	9% (7)
Date of visit	82% (64)
Treatment time listed in minutes	19% (15)
All entries signed and dated	53% (41)
Total of billed treatments does not exceed treatment time	6% (5)
All treatment time billed required skilled intervention	6% (5)
Correct use of group therapy charges	5% (4)

Abbreviations: LAT, licensed athletic trainer; MD, medical doctor; SOAP, subjective, objective, assessment, and plan.
[a] Average number of specified inclusion criteria = 7.8 ± 4.3 items.

described conducting a yearly brainstorming session each summer to adjust documentation strategies, followed by an intensive learning experience for all staff:

> We do a lunch and learn where we go over exactly how we want everyone to document all the things that we're documenting. . .So, we have a whole afternoon going over what's expected and how it's supposed to be documented. And then typically we asked that the first couple injuries. . .to do that with me or another staff member who's done it before, so we can see how they go about clearing the documentation. . .We also do simulated ones. . .And then their schedule has to have documentation time built into it. So that's a way that we know that people are working on it

Table 6. Treatment Note Criteria From Survey (N = 64)[a]

Tasks	Specified Inclusion
All SOAP sections filled in	44% (28)
One item reassessed every visit	17% (11)
Reasons why modality was performed is listed, if applicable	13% (8)
Specific modality parameters listed, if applicable	53% (34)
Interventions selected clearly demonstrated need for LAT skills	22% (14)
Interventions are nonroutine and nonrepetitive	17% (11)
Evidence of skilled feedback with exercises presented	20% (13)
Exercises that can be performed at home are given in home exercise programs	48% (31)
Assessment states patient's response to treatment specifically	41% (26)
Goals are reassessed every 2 to 3 visits	20% (13)
Plan lists specific ideas for next treatment	39% (25)
Modifications to treatment plan are listed	56% (36)
Communication with patient, MD, etc, is documented	59% (38)
Changes in work status/restrictions noted	64% (41)
Patient/family education noted at least every 2 visits	5% (3)
Cancelled and no-show appointments listed with dates	22% (14)
Visit number (actually attended) listed	5% (3)
Date of visit	81% (52)
Treatment time listed in minutes	16% (10)
All entries signed and dated	48% (31)
Total of billed treatments does not exceed treatment time	3% (2)
All treatment time billed required skilled intervention	6% (4)
Correct use of group therapy charges	5% (3)

Abbreviations: LAT, licensed athletic trainer; MD, medical doctor; SOAP, subjective, objective, assessment, and plan.
[a] Average number of specified inclusion criteria = 6.7 ± 3.7 items.

Table 7. Codebook Frequency Counts

Domain Category Subcategory	Frequency (N = 12)	Commonality[a]
Framework		
Proactive development	100% (n = 12)	General
Explicit expectations	100% (n = 12)	General
Enforcement of accountability	100% (n = 12)	General
Intentionality	92% (n = 11)	General
Limitations		
Deprioritization	75% (n = 9)	Typical
Assumptions		
Prior training	83% (n = 10)	Typical
Quality of documentation	83% (n = 10)	Typical

[a] Commonality: general = 11 to 12; typical = 6 to 10; variant = 2 to 5.[21]

> every day. . .we have a minimum of an hour of documentation time, but they can break that up if they want to.

Other supervisors mentioned software tutorials, reviewing the NATA Best Practice Guidelines,[7] describing expectations for the completion of different forms, reviewing policies and procedures, and encouraging check-ins or asking questions as needed. Participant 3 noted that after the initial training, further training can extend as long as "6 months or a year to make sure they understand everything." Overall, the supervisors emphasized a need for both intentionality around periodic training and the ongoing nature of that training to ensure that staff were actively working to improve documentation practices.

Explicit Expectations. Supervisors discussed a plethora of documentation expectations they had for their staff. Often, supervisors communicated their expectations most clearly during orientation and onboarding sessions, but this was just the vehicle for communicating expectations. Expectations were communicated orally and in writing via policies, procedures, and examples of quality records. Participant expectations for timing to complete documentation were variable, similar to the survey responses. For example, participant 1 expected encounters to be documented before leaving the office for the day, but participant 11's expectations were far less stringent: "I think the expectations are that it's done, it's being done. I don't have a lot of firm expectations as far as how or when."

Participants also discussed specific criteria for creating notes and inclusion criteria within the notes. Participant 12 described the difference between an encounter that would be documented and one that would not be documented:

> So, we track pretty much everything that comes through. That does include every ice bag for example. I will say that if an athlete comes in and it's just like, "I just need a Band-Aid and I need nothing else," we don't track that. But if it's, "I need a band aid, but I need it cleaned," that is counted as a patient encounter. For us, we consider it an encounter 99% of the time if an athlete comes in and goes out with some kind of assistance.

Although some supervisors only expected standard information within a note using the subjective, objective, assessment, and plan format, others had more specific criteria. Participant 8 stated,

> High-quality documentation that looks like you're getting a very good idea of that patient themselves, including their goals, their own personal goals, and then to have a very good objective section where you're clearly able to rule in and out conditions. And then be able to provide both the clinical exam, or a clinical assessment, and what the patient's impairments are, and all that culminating with an overall care plan that has timelines, discharge criteria, ideas for modalities, and what the direction of the rehabilitation looks like. But those goals should definitely reflect the patient's goals, and then all of the daily notes that go along with that should all touch on the initial care plan, and if there's modifications or anything like that. That's what that should look like. So, it should be just a very, "wow this is very continuous, clearly there's an obvious direction that the patient is going in." And patient outcome measures should also be included in that.

Enforcement of Accountability. The accountability category encompasses the continuum of engagement from the supervisor, ranging from specific and intentional strategies to little-to-no involvement. For instance, participant 2 reported,

> I have a weekly check. They know that every Tuesday I go in and I can check all of our open injuries and make sure that they have follow up notes or that they're actually in the software system. . .So we do those checks and then again at the end of the month, we do reports that show kind of productivity and so they're held accountable for that as well.

Other strategies for ensuring accountability included reviewing spreadsheets generated by the electronic medical record (EMR) and emailing reminders to staff to update or close injury cases. Participant 5 noted,

> Through Excel reports that I can generate with our EMR, I can view [for example] how many injuries do we have in any given year, how long have they been open, and how long has it been since they've been updated. Periodically throughout the year I will send an email with "we have X injuries that have gone more than 2 weeks without an update. If they need it, please update them. If they are in fact closed, please go through the process of closing them so we don't have open injuries that don't need to be open."

Participant 7 described spending more time during the orientation process to explain documentation expectations for part-time employees to ensure accountability. When these employees do not meet these expectations, there is a process for attempting to identify the source of the problem and offer immediate and long-term solutions. They described the process.

> First, we asked them, "Was there a problem? Were you confused? Did you not know that you needed to meet this expectation?" And we look for their response and then we kind of go from there. If it's repetitive, then we sit down with them and we say, "We really expect this to be filled out completely in this manner. . ." But in the past, if we've seen someone that just really, just isn't getting it. . .someone, that is just really just not getting the job done, then we decrease their hours or eventually phase them out of working with us.

Participant 11 noted that he does not have any strategies to hold his employees accountable.

> To require a certain format of documentation or a certain content to documentation takes away a little bit of an individual's autonomy and their kind of personal style of documenting their encounters. I'm also not a huge fan of putting in place policies or rules that don't have any enforcement behind them. And I'm not entirely sure how I would go about enforcing a documentation policy, or even if I want to, to be honest. Because the idea that I would have to fire an AT because their notes weren't up to a standard that we created, I'm having a hard enough time finding ATs as it is. So, we're trying to work with kind of what we've got and meet people where they're at as far as their abilities and their desires and their own personal style.

Intentionality. Supervisors noted the purpose of documenting fell into 1 of 4 categories: continuity of care and delivery, communication, "cover yourself" and legal implications, and value demonstration. Participant 12 credits her previous training in emergency services, where she follows the sentiment of "if you didn't write it down, you didn't do it." In addition to helping with advocating for pay or budget increases, she stated,

> . . .It helps with accountability and helping us communicate with coaches, it helps us communicate with stakeholders just what we are worth, and what we need to continue to be successful and also a bit of CYA [cover your assets]. Make sure that if something were to happen, we are covered. But also it's if I'm covering for someone, or someone is covering for me, and they are working with one of my athletes and they don't know the whole case, they can go in, read that [evaluation], and have a sense of what's going on so they can better help with the transition of care between myself and the temporary person.

Participant 6 noted that high-quality documentation is required for his employees to be reimbursed and also for interprofessional collaboration.

> . . .It also just strengthens the need for a really good working relationship with your team physician because they're ultimately signing off on these injuries, a lot of times without actually evaluating them in person, just agreeing that the plan of care is a reasonable plan of care.

Limitations

The limitations domain included organizational concepts relative to barriers in creating high-quality documentation.

Deprioritization. Supervisors often described documentation as one of many responsibilities, noting that high patient volume and few staff sometimes limited their ability to create high-quality documentation. Two supervisors noted prioritizing seeing more patients over documentation. Participant 8 indicated,

> We have 470 athletes here at the institution that I work at, and we have the equivalent of 3 ATs. And so, to have so few ATs for that many athletes, to sit down and write a full note like that, it takes a lot of time. You think, I could be seeing so many more athletes during that time.

Participant 10 reported empathizing with his staff being busy and not wanting to enforce more strict expectations due to high demands of delivering patient care and covering events.

> I'm very confident that they're on the same page with how we want to document, how we want to treat, how to do things, but there's just external factors in the way that we feel are limiting that in some ways.

He recognized that high-quality documentation includes a comprehensive evaluation and treatment notes but also recognized the demands placed on staff. He described a need for leniency until workloads decrease, more staff is hired, or other external demands change. He said,

> I'm not a very mean supervisor. . .A lot of it is in just reminding them. . .But I've never had to discipline anybody for not doing it. . .We had 2 people. . .gone for 35 days out of a 55-day span. . .that's an unbelievable amount of travel. . .their documentation during that time was not awesome. It was just how busy it was. So, we talked to them, like, "I know you're busy. Get done what you can."

Participant 11 noted that the additional responsibility of creating a policy and procedure and enforcing it from a supervisor's perspective was not high on his priority list. He noted that not setting a firm guideline or expectation but still expecting it to be done regularly is a "good middle ground."

> I think supervisors have to choose how they want to spend their energy so that we don't get burned out. . .So, it's kind of picking your poison. Am I going to spend an extra 2 hours at work meeting the standards of documentation, and then feel like I'm burnt out that way and kind of creating my own problems?

Assumptions of Prior Training and Quality. The supervisors described their belief that their staff possessed adequate training before hiring and produced high-quality documentation despite supervisors failing to review or audit existing records. Participant 3 attributed prior training to years of experience, stating, "I think for somebody who's been out 10 plus years, they're given the list and I probably just expect it. They haven't gotten any extra training, other than on the EMR."

Participant 6 commented on the expectation of all ATs.

> I just assumed that when I get somebody who's a certified AT, especially somebody who comes recommended to me by a trusted individual, that they know how to do the job and it's more to me about personality and relationship building than anything else.

Participant 7 noted that although she does review documentation, she does not use a tool or checklist. Instead, she looks for standard criteria, such as status, progress, and goals, to determine quality. When asked why she does not have more strict accountability measures, she reported,

I think we've got great employees. I think they work really hard. I think we probably overlook a lot of the documentation loopholes. If we can discuss with them, we'll fill in the blanks and add addendums more. As long as we make sure that they're actually treating the athletes appropriately.

Participant 9 further echoed this sentiment of not feeling the need to have accountability strategies in place, stating, "I'm really lucky with the staff that we have because they're all very, in my opinion, very thorough and professional and on time with their notes that they do."

DISCUSSION

Reasons, Criteria, and Mechanics

The Strategic Alliance's Athletic Training Research Agenda was developed to improve patient care and advance the profession, and improving medical documentation compliance and quality is listed within the Health Information Technology priority.[25] Research regarding athletic training medical documentation continues to grow. In our study, the reasons supervisors cited for creating medical records, selecting criteria for which encounters to record, and choosing mechanisms for documenting were consistent with past literature,[8,9,13] highlighting a similar level of understanding between the ATs functioning as employees and those functioning in supervisory roles. These reasons included continuity of care and delivery, communication, "cover yourself" and legal implications, and demonstrating value. Despite similar levels of understanding between supervisors and employees, the findings from our study imply that the execution of enforcing quality documentation practices is variable between different organizations.

Policy and Procedure Creation

The NATA Best Practice Guidelines serve as a reference for the importance of documentation, key terminology, understanding of local and federal rules and regulations, and setting-specific considerations.[7] These guidelines do not dictate specific standards for documentation mechanics, inclusion criteria, timeliness, or accountability expectations. It is worth noting that the lack of standardization does allow ATs to be flexible in creating policies and procedures that meet local organization needs. The solution to inadequate medical documentation in athletic training may not be complete standardization but more specific guidelines and encouragement for individual organizations to take responsibility and ownership in creating and upholding their own policies and procedures.

In our study, no supervisors commented on consulting with legal counsel when creating their policies and procedures regarding medical documentation. Individuals described professional education and socialization, life and clinical experience, trial and error, and quality improvement (QI) projects as sources for developing policies. Supervisors should coordinate with risk management experts when crafting policies and procedures for emergencies and daily operations because unexpected or unwanted outcomes may lead to litigation if an appropriate process is not in place.[26,27]

Our study showed similar results as those reported in previous studies[28,29] regarding the lower prevalence of formal policies and procedures, with fewer than half of supervisors reporting having formal written organizational documentation policies, procedures, and time expectations for recording encounters. One study examined written and nonwritten organizational practices and reported that only half of the secondary school ATs were using risk management practices to write their policies and procedures.[28] Another study found that policies and procedures regarding administrative responsibilities, including medical documentation, were operational and written only 64.3% of the time; 20.8% indicated that they were operational only, 0.9% noted that they were written only, and 14.0% indicated that they were neither written nor operational.[29] They also found that only 35.3% of collegiate ATs had guidelines for periodically reviewing their policies and procedures.[29] Potential strategies for improving policy and procedure knowledge retention and enforcement include developing clear and concise expectations and instructions and reviewing materials at least annually and as often as necessary.[30]

Accountability, Education, and Training

In addition to considering risk management when creating policies and procedures, health care departments should also consider managerial, organizational, and clinical approaches to investigate multiple perspectives on service effectiveness and efficiency. Known as *clinical governance*, this approach provides a framework that encourages cohesiveness among all personnel for achieving goals related to improving quality and patient care safety in a way that is practically manageable for supervisors and executable by employees.[31] An example of this type of project in previous literature included using patient-rated outcome measures to assess the impact of health care interventions on patients and guide resource allocation.[32] The cohesiveness of clinical governance can help ensure systemic dissemination of concepts, timely interventions for performance gaps, and consistent standardization in record quality.[33] To address poor performance, individuals must communicate feedback with clear expectations to support the rationale. Directness creates the basis for accountability, which is essential for organizational change and transformation. Past research supports 6 elements for supervisors in health care to implement successful change: a compelling vision with a sense of urgency, meaningful and realistic plans understood by stakeholders and employees, teamwork and empowerment, effective 2-way communication, expanding on previous success to create momentum, and strong and effective leadership.[34,35]

Accountability and lack of accountability were significant findings within our results as well as previous research in medical documentation practices in athletic training.[10,13] Evidence from our study identified accountability strategies that included annual training and education, weekly injury report checks, 1-on-1 meetings, and medical documentation review and auditing. However, some evidence suggests that employees may need more than resources, periodic tips, and refreshers to inspire sustainable improvement.[8] Various tools have been used among health care professionals to inspire such improvement, and these tools often need to reflect the profession's and organization's services and responsibilities. For example, self-audits and peer audits effectively improve documentation quality.[36,37] Although these internal audits may be an effective way to engage staff in mutual accountability, clinical auditing must be completed with a high level of knowledge on accuracy,

availability, completeness, relevance, reliability, timeliness, and validity to produce higher-quality medical records.[37] Supervisors should consider exploring different auditing strategies and selecting interventions based on the individual organization's needs, building the process into their documentation policies and procedures to enforce standards and expectations.

Implementation of the new Commission on Accreditation of Athletic Training Education professional program Curricular Content Standards around QI and health care informatics essentially demands improved education and exposure during professional preparation and can serve to improve documentation practices across the profession.[38] Recent literature suggests that academic electronic health record systems may assist in training athletic training students. These systems use activities such as educational tasks, documentation projects, critical reviews of standardized patient cases, and assessments of patient care data for QI efforts to improve competency in informatics and documentation skills.[39] Moreover, these practices also offer an opportunity to evaluate practice and improve patient safety, and engaging in these learning activities when preparing future ATs will likely improve the skills of documenting and the culture around documentation in the coming years.

Prioritization

Athletic training literature has referenced lack of time as a barrier for a multitude of practice behaviors, including medical documentation.[10] Our study echoed these sentiments, specifically with medical documentation, as previous research has suggested that it is not a lack of time but a lack of priority, a lack of knowledge, and a lack of incentive.[9,10] The rationale of prioritizing patient care and supporting high caseloads or event coverage is echoed in our study alongside other athletic training medical documentation studies.[8,10,13] Other health care professions are often beholden to insurance companies and the Centers for Medicare and Medicaid Services; to get paid, one must document.[40] It may be because of the historic nature of athletic training as a cost-containment effort[41] that the athletic training profession has failed to incentivize documentation, but it is truly indiscernible when and where the shift in deprioritizing documentation occurred in athletic training. Although medical documentation is required for clinical practice in health care, many athletic training organizations are still falling short.

Evidence from our study and past research may suggest that the common culture of athletic training places patient care and constant availability above all else, disrupting the necessary time and energy to dedicate to other roles and responsibilities. It is evident that a cultural shift is needed to comply with best practices in order to optimize time and reduce medical errors for legal and patient safety reasons. High-quality documentation ensures the completion of many essential components of care. These components include, but are not limited to, a comprehensive evaluation, consideration of differential diagnoses, timely and appropriate treatment of potential or active life-threatening conditions, and creation of clear care plans noting follow-up testing and referral to other providers as needed. A choice to prioritize other roles and responsibilities above medical documentation is a choice, albeit not an intentionally malicious choice, to deprioritize patient safety.

Limitations and Future Directions

Although survey research can reach many participants, there is a risk for self-selection bias[42] and sampling bias because we only surveyed ATs working as supervisors within NCAA-affiliated schools. Our population sample may have been more open to talking about their documentation practices and thus could influence the generalizability of the results. Our lower response rate could also be attributed to this limitation, as 95% completed the survey through demographics, but only 68% completed the tool in its entirety.

Future intervention research in medical documentation should evaluate the effectiveness of different strategies for improving the overall quality of documentation and frequency of documentation completion. Further studies could take the form of research commentary or implementation science, such as QI projects.[43,44] Quality improvement projects might illuminate the process of creating policies and procedures or explore the process of improving medical documentation locally. Potential areas of improvement might include enhancing discharge[45] and diagnosis[46] processes, item inclusion criteria,[47,48] and holistic care approaches.[49] Additional research could also evaluate the differences and similarities between documentation practices across other health care professions, levels of education, and training completed to meet organizational standards and foster interprofessional collaboration and communication.

CONCLUSIONS

Despite supervisors acknowledging the various purposes for completing documentation and the importance of high-quality records, currently, there are no consistent strategies for ensuring employee accountability and quality of content within records. In place of a nationally recognized standard for documentation inclusion criteria and mechanics, individual organizations are encouraged to use risk management personnel and other essential stakeholders to create appropriate and sound policies and procedures for the roles and responsibilities of the employees working in the environment. Expectations regarding format, process, and content should be clear and executed among all employees. Until the governing bodies can make further recommendations, supervisors should use QI strategies to identify gaps within their organizations' documentation methods and strategize approaches that support employee prioritization of promptly producing complete and accurate documentation. Clear organizational standards and reinforcement of employer accountability will assist with QI efforts targeting improved patient care delivery, system outcomes, and legal compliance.

REFERENCES

1. King J, Patel V, Jamoom EW, Furukawa MF. Clinical benefits of electronic health record use: national findings. *Health Serv Res*. 2014;49(1 pt 2): 392–404. doi:10.1111/1475-6773.12135
2. Giardina TD, King BJ, Ignaczak AP, et al. Root cause analysis reports help identify common factors in delayed diagnosis and treatment of outpatients. *Health Aff (Millwood)*. 2013;32(8):1368–1375. doi:10.1377/hlthaff.2013.0130
3. Greenberg JK, Otun A, Nasraddin A, et al. Electronic clinical decision support for children with minor head trauma and intracranial injuries: a

sociotechnical analysis. *BMC Med Inform Decis Mak*. 2021;21(1):161. doi:10.1186/s12911-021-01522-w
4. Schnipper JL, Linder JA, Palchuk MB, et al. Effects of documentation-based decision support on chronic disease management. *Am J Manag Care*. 2010;16(12 suppl HIT):SP72–SP81.
5. Alami H, Lehoux P, Gagnon MP, Fortin JP, Fleet R, Ag Ahmed MA. Rethinking the electronic health record through the quadruple aim: time to align its value with the health system. *BMC Med Inform Decis Mak*. 2020;20(1):32. doi:10.1186/s12911-020-1048-9
6. Coyne JS, Hilsenrath PE, Arbuckle BS, et al. Triple aim program: assessing its effectiveness as a hospital management tool. *Hosp Top*. 2014;92(4):88–95. doi:10.1080/00185868.2014.968488
7. Thompson C, Muscatell A, Buffum P, Peterson B, Cooper L, Mathewson C. Best practice guidelines for athletic training documentation. National Athletic Trainers' Association. Published August 2017. Accessed January 23, 2023. https://www.nata.org/sites/default/files/best-practice-guidelines-for-athletic-training-documentation.pdf
8. Kasamatsu TM, Nottingham SL, Eberman LE, Neil ER, Welch Bacon CE. Patient care documentation in the secondary school setting: unique challenges and needs. *J Athl Train*. 2020;55(10):1089–1097. doi:10.4085/1062-6050-0406.19
9. Nottingham SL, Lam KC, Kasamatsu TM, Eppelheimer BL, Bacon CEW. Athletic trainers' reasons for and mechanics of documenting patient care: a report from the Athletic Training Practice-Based Research Network. *J Athl Train*. 2017;52(7):656–666. doi:10.4085/1062-6050-52.3.14
10. Bacon CEW, Eppelheimer BL, Kasamatsu TM, Lam KC, Nottingham SL. Athletic trainers' perceptions of and barriers to patient care documentation: a report from the Athletic Training Practice-Based Research Network. *J Athl Train*. 2017;52(7):667–675. doi:10.4085/1062-6050-52.3.15
11. Laurent TG, Bradney DA. Leadership behaviors of athletic training leaders compared with leaders in other fields. *J Athl Train*. 2007;42(1):120–125.
12. Bacon CEW, Kasamatsu TM, Lam KC, Nottingham SL. Future strategies to enhance patient care documentation among athletic trainers: a report from the Athletic Training Practice-Based Research Network. *J Athl Train*. 2018;53(6):619–626. doi:10.4085/1062-6050-298-17
13. Eberman LE, Neil ER, Nottingham SL, Kasamatsu TM, Bacon CEW. Athletic trainers' practice patterns regarding medical documentation. *J Athl Train*. 2019;54(7):822–830. doi:10.4085/1062-6050-230-18
14. Johnson RB, Onwuegbuzie AJ. Mixed methods research: a research paradigm whose time has come. *Educ Res*. 2004;33(7):14–26. doi:10.3102/0013189X033007014
15. Creswell JW, Plano Clark VL. *Designing and Conducting Mixed Methods Research*. Sage Publications; 2007.
16. Granquist MD, Podlog L, Engel JR, Newland A. Certified athletic trainers' perspectives on rehabilitation adherence in collegiate athletic training settings. *J Sport Rehabil*. 2014;23(2):123–133. doi:10.1123/jsr.2013-0009
17. Polit DF, Beck CT. The content validity index: are you sure you know what's being reported? Critique and recommendations. *Res Nurs Health*. 2006;29(5):489–497. doi:10.1002/nur.20147
18. Shi J, Mo X, Sun Z. [Content validity index in scale development]. Article in Chinese. *Zhong Nan Da Xue Xue Bao Yi Xue Ban*. 2012;37(2):152–155. doi:10.3969/j.issn.1672-7347.2012.02.007
19. The Belmont report: ethical principles and guidelines for the protection of human subjects of research. US Department of Health and Human Services. Published April 18, 1979. Accessed September 19, 2023. https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html
20. Buhi ER, Goodson P, Neilands TB. Out of sight, not out of mind: strategies for handling missing data. *Am J Health Behav*. 2008;32(1):83–92. doi:10.5555/ajhb.2008.32.1.83
21. Winkelmann ZK, Eberman LE. Characteristics of secondary school athletic trainers: salary, job satisfaction, and perceived percentage of daily practice. *Athl Train Sports Health Care*. 2017;9(3):124–132. doi:10.3928/19425864-20170210-01
22. Hill CE, Knox S, Thompson BJ, Williams EN, Hess SA, Ladany N. Consensual qualitative research: an update. *J Couns Psychol*. 2005;52(2):196–205. doi:10.1037/0022-0167.52.2.196
23. Thrasher AB, Walker SE, Hankemeier DA, Pitney WA. Supervising athletic trainers' perceptions of professional socialization of graduate assistant athletic trainers in the collegiate setting. *J Athl Train*. 2015;50(3):321–333. doi:10.4085/1062-6050-49.3.67
24. Hiller AJ, Vears DF. Reflexivity and the clinician-researcher: managing participant misconceptions. *Qual Res J*. 2016;16(1):13–25. doi:10.1108/QRJ-11-2014-0065
25. Eberman LE, Walker SE, Floyd RT, et al. The prioritized research agenda for the athletic training profession: a report from the Strategic Alliance Research Agenda Task Force. *J Athl Train*. 2019;54(3):237–244. doi:10.4085/1062-6050-374-18
26. Mickle AM. *Athletic Training Risk Management: Developing Policy and Procedure From Case Law Analysis*. Dissertation. New Mexico State University; 2001.
27. Boggess BR, Bytomski JR. Medicolegal aspects of sports medicine. *Prim Care*. 2013;40(2):525–535. doi:10.1016/j.pop.2013.02.008
28. Dunbar-Gaynor M, Zimmerman EP, Liberi V. An examination of policy and procedure practices of secondary school athletic trainers. *Internet J Allied Health Sci Pract*. 2020;18(2):6. doi:10.46743/1540-580X/2020.1882
29. Zimmerman EP. *Risk Management Practices of Collegiate Athletic Trainers: An Examination of Policies and Procedures*. Dissertation. Marshall University; 2007.
30. Guiding principles for AT policy and procedure development. Board of Certification. Accessed January 31, 2023. https://www.bocatc.org/system/comfy/cms/files/files/000/000/529/original/Guiding_Principles_for_AT_Policies_and_Procedures.pdf
31. Scally G, Donaldson LJ. The NHS's 50 anniversary. Clinical governance and the drive for quality improvement in the new NHS in England. *BMJ*. 1998;317(7150):61–65. doi:10.1136/bmj.317.7150.61
32. Dawson J, Doll H, Fitzpatrick R, Jenkinson C, Carr AJ. The routine use of patient reported outcome measures in healthcare settings. *BMJ*. 2010;340:c186. doi:10.1136/bmj.c186
33. Sciacovelli L, Secchiero S, Zardo L, Zaninotto M, Plebani M. External quality assessment: an effective tool for clinical governance in laboratory medicine. *Clin Chem Lab Med*. 2006;44(6):740–749. doi:10.1515/CCLM.2006.133
34. Kotter JP. Why transformation efforts fail. *J Prod Innov Manage*. 1996;2(13):170.
35. Longenecker CO, Longenecker PD. Why hospital improvement efforts fail: a view from the front line. *J Healthc Manag*. 2014;59(2):147–157. doi:10.1097/00115514-201403000-00010
36. Mahlknecht A, Abuzahra ME, Piccoliori G, Enthaler N, Engl A, Sönnichsen A. Improving quality of care in general practices by self-audit, benchmarking and quality circles. *Wien Klin Wochenschr*. 2016;128(19–20):706–718. doi:10.1007/s00508-016-1064-z
37. Poscia A, Azzolini E, Cacciatore P, et al. Does clinical governance influence the quality of medical records? *Ann Ist Super Sanita*. 2018;54(2):104–108. doi:10.4415/ANN_18_02_05
38. Standards and procedures for accreditation of professional programs in athletic training. Commission on Accreditation of Athletic Training Education. Accessed June 4, 2023. https://caate.net/Portals/0/Standards_and_Procedures_Professional_Programs.pdf?ver=45lhjjb4hBwN3vKguwEQMw%3d%3d
39. Lam KC, Anderson BE, Welch Bacon CE. The critical need for advanced training in electronic records use: implications for clinical practice, education, and the advancement of athletic training. *J Athl Train*. 2022;57(6):599–605. doi:10.4085/1062-6050-298-21
40. Lassen-Vogel C. Documentation best practices you need to thrive under the 2023 CPT E/M code and guideline changes. Medical Group Management Association. Published December 5, 2022. Accessed June 6, 2023. https://www.mgma.com/articles/documentation-best-practices-you-need-to-thrive-under-the-2023-cpt-e-m-code-and-guideline-changes

41. Wilkerson GB. A vision for the future of the athletic training profession. *Athl Ther Today*. 2007;12(6):1–3. doi:10.1123/att.12.6.1
42. Dillman DA, Symth JD, Christian LM. *Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method*. 3rd ed. Wiley; 2008.
43. Rivera MJ, Games KE. Rethinking quality improvement in athletic health care. *Clin Pract Athl Train*. 2020;3(2):3–5. doi:10.31622/2020/0002.2
44. Lopes Sauers AD, Sauers EL, Valier ARS. Quality improvement in athletic health care. *J Athl Train*. 2017;52(11):1070–1078. doi:10.4085/1062-6050-52.10.15
45. Larrow A, Chong A, Robison T, et al. A quality improvement initiative to improve discharge timeliness and documentation. *Pediatr Qual Saf*. 2021;6(4):e440. doi:10.1097/pq9.0000000000000440
46. Spellberg B, Harrington D, Black S, Sue D, Stringer W, Witt M. Capturing the diagnosis: an internal medicine education program to improve documentation. *Am J Med*. 2013;126(8):739–743. doi:10.1016/j.amjmed.2012.11.035
47. Francis RC, Schmidbauer W, Spies CD, Sörensen M, Bubser F, Kerner T. Standard operating procedures as a tool to improve medical documentation in preclinical emergency medicine. *Emerg Med J*. 2010;27(5):350–354. doi:10.1136/emj.2008.070284
48. Alatis AS, Monahan BV, Raymond AD, Hudson KB, Vieth JT, Nable JV. Checklists improve EMS documentation: quality improvement in a collegiate-based EMS agency. *J Coll Emerg Med Serv*. 2020;3(1):16–21. doi:10.30542/JCEMS.2020.03.01.05
49. Stewart K, Doody O, Bailey M, Moran S. Improving the quality of nursing documentation in a palliative care setting: a quality improvement initiative. *Int J Palliat Nurs*. 2017;23(12):577–585. doi:10.12968/ijpn.2017.23.12.577

Address correspondence to Jordan S. Devenney, MS, LAT, ATC, Department of Applied Medicine and Rehabilitation, Indiana State University, 567 North 5th Street, Terre Haute, IN 47802. Address email to jordan.devenney@indstate.edu.