

Hiring Patterns of Athletic Trainers in Ambulatory Care Settings

Beverly J. Westerman, EdD, ATC • The George Washington University;
Bianca K. Frogner, PhD • University of Washington; and Loretta DiPietro, PhD, MPH,
MS • The George Washington University

Athletic trainers (ATs) are often employed to provide direct patient care in ambulatory care settings, particularly in orthopedic practices. Given their training, ATs may both complement and substitute for services otherwise delivered by physicians or other providers such as physician assistants (PAs) and nurse practitioners (NPs). With concerns about

projected primary care provider shortages,¹ ATs may be hired to deliver cost-effective ambulatory care practices and to help keep up with the growing demand for primary care. The value of ATs in ambulatory care practices, however, is not widely recognized, in part due to the limited amount of research on the role of ATs in these settings.

KEY POINTS

▶ Ambulatory care settings are interested in hiring athletic trainers to deliver health care.

▶ Athletic trainers play complementary and substitutive roles to other providers in ambulatory care settings.

▶ Ambulatory care practice administrators place high value on athletic trainers' knowledge and skills.

This study aims to add to the literature by identifying the motivations of ambulatory care practice administrators for hiring an AT, and to gauge the perceived value of ATs in ambulatory care settings. In our expert interviews, we learned that ambulatory care practice administrators were satisfied with the work of ATs and that they planned to

maintain or increase the number of ATs working in their practices. The respondents placed a high value on the knowledge and skills of the ATs they employ. While a larger study is necessary to track and assess the role of ATs in ambulatory care practices, the findings of our study highlight the value and potential growth in the demand for ATs for delivering patient care in ambulatory care settings.

Background

A limited number of studies have assessed the value of ATs in ambulatory care practices. Three such studies noted that hiring ATs improved productivity. Two of these studies found that hiring ATs increased the number of patient encounters about 15–30% for orthopedists, as well as for primary care providers.^{2,3} These improvements in productivity were estimated to translate to an additional \$200 to \$1,200 per day in practice revenue (based on current Medicare reimbursement rates).^{3,4} A third study found that ambulatory care practices employing ATs had higher patient throughput than the average ambulatory care practice in the United States, although there was no evidence of economies of scale with greater numbers of ATs in practice.⁵ ATs not only increased throughput, but also improved patient satisfaction; increases

in their self-reported health levels as well as improved quality of life for physicians were noted.^{6,7}

ATs may be contributing to improved productivity because athletic training skill sets are well-aligned with the needs of the patients seen in ambulatory care settings. For example, patients seen in orthopedic practices may require care for a musculoskeletal condition, which is one of the domains of education for ATs. In the United States, the minimum entry-level job requirement for an AT is a bachelor's degree, although about 70% of ATs have a master's degree or higher.⁸ The high percentage of master's-degree-trained ATs puts the profession more on the educational level of NPs, PAs, and occupational therapists (OTs), where the minimum entry-level requirement for clinical practice in these professions is a master's degree.⁹ One study found that orthopedic surgeons were more likely to hire ATs over a PA or NP once they better understood the skill set of ATs.¹⁰ Another study comparing ATs to entry-level PAs and NPs reported that orthopedic surgeons and primary care physicians were "very well" satisfied with the musculoskeletal skills of ATs compared with PAs and NPs.⁶

The literature generally supports hiring ATs in ambulatory care settings. This study aims to determine to what extent various motivations (e.g., improved productivity and/or revenue, preferred skill set, increased satisfaction) drive the hiring of ATs, and whether these motivations may be realized in practice. We found that each of these motivations were mentioned consistently throughout our interviews with ambulatory care practice administrators, with a particular emphasis on skill set.

Procedures and Findings

Procedures

We conducted standardized open-ended interviews with individual practice administrators who, at the time, utilized ATs to provide direct patient care. The questions were developed by a core team of three academics, including one certified AT with extensive experience as a clinician and an educator in athletic training; one qualitative researcher and epidemiologist with exercise science and health education expertise; and one health services researcher with extensive survey experience. The team generated questions that would reveal the motivations behind hiring ATs and gauge the perceived value of having ATs working in

ambulatory care settings. The questions were designed to be open-ended and neutral in tone regarding the role of ATs. With feedback from external experts, including three academic-affiliated and practicing ATs, the questions were further refined and resulted in the following seven questions:

1. How is an AT used in your practice?
2. Tell me why you decided to employ an AT?
3. What are the advantages of employing an AT in your practice?
4. What are the disadvantages of employing an AT in your practice?
5. What do you see as the role of the AT in physician practices in the future?
6. How will your practice use ATs in the next 5–10 years?
7. Is there anything else you would like to tell us about the use of ATs in your practice?

We recruited ambulatory care administrators (including physicians and nonphysicians) who were part of the hiring decisions and supervised ATs that provided direct patient care. Participants were selected using a convenience sample by means of four methods: (1) proximity to the researchers' geographical area, (2) from the Health Care Administrators Workgroup list provided by the National Athletic Trainers' Association, (3) an Internet search, and (4) suggestions from ATs who had knowledge of ambulatory care practices utilizing ATs. We aimed to conduct five to 10 interviews but were limited in our sample size, in part due to available time and funding allocated for this study. The biggest challenge was identifying and scheduling the appropriate study subjects. With each additional recruit, we conducted a review of the interview notes to determine whether the sample size was sufficient to identify emerging themes or whether further recruiting was necessary.

We conducted a total of six interviews (three physicians and three nonphysicians) at six different clinical practices. Although we specified the role of the respondent with relation to ATs, it was up to the practice to identify the individual best suited to be interviewed. Thus, the respondents had varying levels of involvement in clinical practice versus working as an administrator. Additional demographic or experience-related participant information was not collected.

The clinical practices included (1) a private orthopedic/sports medicine practice, (2) a large metropolitan hospital orthopedic institute, (3) a private suburban rehabilitation clinic, (4) a large children's hospital sports medicine orthopedic institute, (5) a sports medicine general practice, and (6) a private rehabilitation clinic. During the private rehabilitation clinic interview, it was discovered that the AT was not being utilized to provide direct patient care. We excluded this interview and only report findings from the remaining five interviews.

The interviews were led by one of the core team members, with a second core team member and one research assistant taking notes. Two interviews were conducted in person and four were conducted by phone via conference call. The interviewers triangulated the content of the interviews by comparing all three sets of notes directly after each interview. Interview data in original note forms were analyzed using a general inductive approach. For each question, the core team members individually reviewed all three sets of notes using key words in context to determine whether words or phrases consistently appeared across the respondents. More than one theme was allowed to emerge per interview question.

Findings

Four themes emerged across the interviews: (1) AT employment decisions and utilization; (2) advantages of employing ATs; (3) disadvantages of employing ATs; and (4) future roles of ATs.

Why Hire an Athletic Trainer? The decision to employ ATs was strongly related to their skill set, which directly correlated to how they were used in the clinics. It was reported that ATs increased efficiency in the practices and were perceived as having expertise in musculoskeletal issues. In addition, ATs have the ability to lead and advise home management care, especially home exercises. One respondent stated that this was particularly important to their practice because many patients traveled a great distance for their appointments. It was advantageous to have the AT to answer patient questions and provide recommendations between physician visits.

The AT was typically the first health care professional to see the patient. In this role, the AT takes the medical history, assesses vital signs, and often completes the initial evaluation and then presents the findings to the physician. The AT may also order films (e.g., radiographs and magnetic resonance imaging). If

trained, the AT could provide casting and/or splinting services. Additionally, ATs are often used for home-care plans and follow-up recommendations with the patient.

Advantages of Hiring an Athletic Trainer. The advantages of employing ATs were described in a variety of ways. It was stated that ATs were well trained in needed skill and content areas; this was perceived as increasing the efficiency of the physician. While the word "efficiency" was used to describe how utilizing an AT helped the physicians' practices, there was no stated definition as to what was meant by the terms efficiency or efficient. One physician noted that he "can probably see more patients" and that ATs have the ability to "think on their feet", have quick judgment, and "know how to work hard." These concepts of efficiency are not the traditional economic definition of efficiency. Future steps, however, should be made to more clearly define this concept and to collect examples of how this improved or enhanced the value of the practice.

Disadvantages of Hiring an Athletic Trainer. A stated disadvantage of employing ATs was their lack of casting training or orthopedic technician certification. Often it is difficult to educate nonsports medicine or nonorthopedic physicians as to what training an AT has received and what is within their legal scope of practice as a health care provider. It was also perceived that ATs lack training/education in general medical and pharmacology issues. One respondent, however, indicated that he "could think of no disadvantages to employing ATs" in his practice.

Future Roles and Utilization of Athletic Trainers. Future roles and the utilization of ATs were described in several ways. By using ATs, ambulatory care practices could provide additional services or maximize existing services and increase patient volume. Respondents stated that their practices planned to hire additional ATs in the future. Therefore, ATs need to "work at the top of the scope of their training." The following statements were noted in relation to utilizing ATs in the broader sense of health care providers: ATs are "uniquely positioned to adapt and move toward population-based models" and ATs are in "a position to take advantage of health care reform." Based on interview responses, ATs should become skilled in casting and splinting, and also improve their knowledge in the areas of general medical issues and pharmacology. There was an expressed need to educate physicians about the benefits of utilizing ATs.

Limitations

This study has a few limitations. The results are not generalizable to all ambulatory care practices, and questions 5 and 6 were found to be repetitive. We aimed to interview ambulatory care practice administrators involved in the hiring decision of ATs, but ultimately, each practice chose the person they felt best to participate in the interview. Subsequently, the respondents who were interviewed had slightly differing roles in the practice (e.g., physicians versus nonphysicians). Future studies may want to focus on the views and perceptions of specific clinicians, given that several comments were made regarding the need to educate physicians about the skill sets, roles, and utilization of ATs.

Conclusions

We learned a few key points from this study. First, decisions to hire an AT were due, in part, to the perceived positive and complementary skill set of an AT. In particular, knowledge of the musculoskeletal system and the ability to take a patient history, collect vital signs, and perform an initial patient evaluation were viewed positively. Second, those interviewed stated satisfaction with the work of ATs and expressed the desire to continue to employ and possibly hire additional ATs for ambulatory care clinical practice. Third, ATs were perceived to lack general medical and pharmacology knowledge, as well as casting skills. This lack of perceived expertise, especially in the area of general medical issues, may limit the utilization of ATs outside of orthopedic or sports medicine practices.

ATs have the potential to be in demand in more traditional health care settings. ATs are already recognized health care professionals with National Provider Identifiers (NPIs). Although, in a recent count of National Athletic Trainers' Association members, slightly less than half of the certified AT members had a registered NPI.¹¹ Additionally, the American Medical Association issued ATs their own evaluation and reevaluation Current Procedural Terminology (CPT) codes.¹² Our interviews demonstrate that ATs may be uniquely qualified to assist with home care instructions and patient care follow-up and care coordination, as well as return-to-work or return-to-physical-activity decisions. ATs also have the knowledge and expertise to help practices move toward population-based health given their education and training in disease and injury prevention.

ATs are gaining wider recognition for their role in delivering direct patient care. The scope of practice of ATs is regulated across 49 states in the United States, as well as the District of Columbia.¹³ In order to strengthen the profession's case that ATs add value to ambulatory care practices, the enhanced tracking of ATs working in ambulatory care clinical facilities is a necessity. ■

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Beverly Westerman is an associate professor in the Department of Exercise and Nutrition Sciences and director of the Athletic Training Education Program at the Milken Institute School of Public Health at The George Washington University, Washington, DC.

Bianca K. Frogner is an associate professor of health economics in the Department of Family Medicine and director of the Center for Health Workforce Studies in the School of Medicine at the University of Washington, Seattle, WA.

Loretta DiPietro is a professor and chair of the Department of Exercise and Nutrition Sciences at the Milken Institute School of Public Health at The George Washington University, Washington, DC.

Malissa Martin, EdD, ATC, CSCS, Rocky Mountain University of Health Professions, is the report editor for this article.

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