

Defining Athletic Training in the Military Setting: A Survey Investigation Into Professional Characteristics, Preparation, and Barriers in Clinical Practice

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Context: The skill sets of athletic trainers (ATs) provide a unique contribution to the US military's optimization of physical readiness, and these positions are becoming more prevalent. However, knowledge regarding the job characteristics of, and ATs' preparation for, employment in a military setting is limited.

Objective: To assess the position and clinician characteristics of ATs working with military members and document their perceptions of working in the military setting.

Design: Cross-sectional study.

Setting: Online survey.

Patients or Other Participants: A total of 53 ATs who currently or formerly worked in the military setting.

Data Collection and Analysis: A Web-based survey with closed- and open-ended questions was distributed via e-mail and social media. Closed-ended data were analyzed via descriptive statistics, and open-ended questions were evaluated for common themes using thematic analysis.

Results: Respondents were primarily males ($n = 31$, 58.5%), had a master's degree ($n = 42$, 79.2%), and were not current or former service members ($n = 46$, 86.8%). Positions

were primarily full time ($n = 50$, 94.3%), contracted with an independent company ($n = 27$, 50.9%), and within the Army ($n = 24$, 45.3%). The ATs were highly satisfied with their workload and ability to apply their skill set. Qualitative analysis revealed 3 themes: (1) the context of clinical practice in the military (eg, rewarding, job scope, military environment), (2) the importance of clinical and interpersonal skills, and (3) the existence of multiple barriers (eg, hiring, military culture, lack of recognition).

Conclusions: Overall, ATs working in the military setting were well-qualified practitioners who were very satisfied with their current positions, yet they also reported barriers, such as working within the military culture and lack of recognition of their skill set. Although ATs indicated a neutral belief that professional degree preparation was sufficient for this clinical practice setting, the qualitative themes provided additional career-preparation advice for individuals interested in this setting.

Key Words: student advice, tactical athletes, military athletic trainers, emerging practice, practice advancement

Key Points

- Athletic trainers (ATs) working in a military setting reported high levels of job satisfaction regarding the base salary, workload, and application of skill set. In addition, qualitative analysis indicated that the military setting was a unique and rewarding clinical practice setting.
- The ATs held a neutral opinion about the ability of professional-level education to prepare them for working in a military setting. Respondents recommended gaining athletic training experience as a certified clinician and developing communication and interpersonal skills before entering the military setting.
- Barriers in the military setting included job availability and navigating the hiring process, military culture or status, and lack of recognition of ATs.

Musculoskeletal injuries, an athletic trainer's (AT's) specialty, are the leading cause of outpatient clinical visits by active-duty service members in the US Armed Services and account for more than 866 000 clinic visits annually.¹ In the late 1990s, the use of athletic training medical care models, inspired by the collegiate sport setting, was investigated.^{2,3} The Navy and Marine Corps became early adopters of athletic training medical care. The Marine Corps' Sports Medicine and Injury Prevention (SMIP) program began as a 27-month pilot test of ATs embedded at 6 Marine Corps training sites in 2002.³ These programs were based at entry-level Marine training schools. The Navy later established Sports

Medicine and Rehabilitation Team (SMART) Clinics staffed by a sports medicine physician, physical therapist, and AT.³ Other health care providers, such as chiropractors and independent-duty corpsmen, may also staff SMART clinics. Implementation of the SMART Clinic at Camp Lejeune and Camp Geiger improved access to medical care and reduced the number of limited-duty-day periods; the latter result in physical evaluation board assessments, which determine if a military member is medically fit to serve or must be discharged.² Athletic trainers in the SMART Clinic primarily work in the clinic, whereas SMIP ATs have a blend of field and clinical duties. Considering that the cost of recruitment alone is estimated at more than

\$11 000 per Marine,³ decreasing the number of terminated Marine service commitments provides great governmental savings.

Reflecting the success of these initial athletic training medical care models, employment opportunities for ATs in the military setting have increased. The Army⁴ and Air Force⁵ now have AT medical care for service members. In August 2018, the Marine Corps announced a 4-year plan that will provide \$8.6 million annually to employ 66 ATs,⁶ nearly doubling the current number. At present, ATs in the military setting primarily serve at opposite ends of the spectrum: either with special operations units (eg, Marine Corps Forces Special Operations Command, Navy SEALs, Army Rangers) in their respective branches or with entry-level training, such as boot camp. At the entry level, ATs help to reduce attrition and improve retention of candidates and recruits. Early intervention for overuse and traumatic injuries can help reduce loss of training time and ultimately allow servicepersons to enter the workforce. At the special operations level, ATs also work to help decrease attrition, but once military members are accepted into the special operations community, they hope to optimize and extend their careers. Each operator, whether at the entry or special operations level, is an investment by the military.

Beyond the information provided in editorials, few authors have addressed ATs working in the military setting. The growth of professional opportunities in the military setting can be largely attributed to the efforts of, and the exceptional care provided by, the initial ATs. Reducing lost duty time and improving access to immediate health care have been the hallmarks of AT implementation.^{3,4} In addition to improved medical access, commanders' support for ATs is vital to position growth. Military leaders have publicly cited AT medical care models as critical and having "increased the effectiveness and efficiency of our mission by providing timely, unique assistance in an area that has a tremendous need."⁴ However, clinical practice in a military setting has never been formally evaluated for the daily services provided to patients, nor have perceived contributors to success in this setting been formally defined. A limited number of articles,^{4,7,8} in which a few military-setting ATs were interviewed, have focused on a "day in the life" of these clinicians and their recommendations for preparing to work with military members. National Athletic Trainers' Association (NATA) salary surveys do provide key information regarding the demographics of ATs employed in the military setting, but this information has been cursory. Salaries and additional certifications of ATs who completed the NATA salary survey are known, but whether these individuals were satisfied with their salaries or believed additional certifications helped them provide care to military members has not been determined.

Therefore, the purpose of our investigation was to assess the position and clinician characteristics of ATs working with military members and document their perceptions of working in a military setting. We aimed to investigate job demographic information, such as salary and hiring classification and ATs' opinions of the educational and clinical preparation for working with military members. We also inquired about their perceived barriers to entering the military setting, advice to individuals seeking these

positions, and certifications or experiences that may help those working in a military setting. Our hypothesis was that military-setting positions would be primarily full-time employment through independent military contracts (not employed directly through the military but through contracts). In addition, we hypothesized that ATs would stress the need for experience before working in a military setting and the benefit of additional certifications.

METHODS

A Web-based, tailored design survey, incorporating both closed- and open-ended questions, was used to evaluate the professional characteristics and perceptions of preparedness of ATs working in a military setting. A survey instrument to address the goals of the current project did not previously exist; therefore, we created a custom survey and pilot tested it on experts in the field of ATs working in the military setting.

Participants

Athletic trainers who were currently working with or had previously worked with military members in any capacity were invited to participate in the study. Inclusionary criteria consisted of (1) currently working clinically, in a research capacity, or in a military setting or having worked in a military setting within the past 5 years and (2) being a certified AT. Participants were excluded if they were not certified ATs (eg, students) or did not have experience working as an AT in a military setting (eg, active-duty member of the military who was a certified AT but not serving the military in this capacity).

Instrument Design

A custom online survey instrument was created using Qualtrics (Qualtrics Labs, Inc, Provo, UT). The survey included demographic data and questions designed to address the following areas of interest related to our research questions: (1) preparation for working with a military population, (2) assessment of job responsibilities, and (3) personal perceptions of one's experiences as an AT working in the military setting. The survey instrument underwent a content validity assessment during both the development and expert-review phases.⁹ We generated questions to address the areas of interest using our knowledge of the military setting and by interviewing content experts. Three experts, who each had more than 10 years' experience as an AT in the military setting, were consulted. These 3 experts were all currently working in the military setting and represented the military academy, special operations, and entry-level military training subsettings. A first draft of the survey was developed from interviews and submitted to the 3 experts for feedback. They were asked to evaluate the language and clarity of the questions, including military terminology, and suggest additional information needed to evaluate the stated areas of interest. Upon receiving the experts' feedback, a second draft was created and submitted for review by a biostatistician consultant with expertise in survey design. Biostatistical support included assistance with question order, question wording, and identification of items that required measured content validity.

Content Validity Assessment and Pilot Testing

Items requiring measured content validity consisted of any opinion-based questions, open-ended questions, and questions that required scaling (eg, Likert-scale questions). After consulting the biostatistician, we revised the items to improve clarity and ensure that responses would provide data capable of addressing the research questions. A third draft was created, and content validity was measured.

Questions being measured for content validity were evaluated on a scale ranging from 1 to 4, with 4 being *ideal*, for each of the following components: relevance, clarity, simplicity, and ambiguity.⁹ A minimum of 5 content experts are recommended for measuring content validity.⁹ Thus, the original 3 content experts were joined by an AT currently working with an Army Reserve Officer Training Corps (ROTC) battalion and an AT who had formerly worked in SMART and SMIP clinics. The minimum mean score of all questions being measured for content validity was 3.67 (of 4). Therefore, the questions were deemed valid. The survey instrument was then pilot tested by 10 current or former military-setting ATs in the authors' professional network. In addition to completing the surveys, pilot testers were asked to provide feedback if necessary. Feedback included clarification of wording, which was addressed before distribution to the participants.

Final Survey

The final survey of 36 to 40 questions, depending on the participant's previous answers, was estimated to take 20 to 40 minutes. Questions were in multiple-choice, Likert-scale, and short-answer formats. Any multiple-choice question with the option of *other* was given a text box for respondents to clarify their selection. All questions were optional, and participants could progress forward and backward within the survey instrument.¹⁰ The ability to pause and return to the survey was also facilitated.¹⁰ The survey instrument was presented using multiple modules, 14 in total, with 1 to 6 questions per module. Questions were grouped in each module based on similarity of topic to allow participants to reference their previous answers without needing to toggle backward in the survey. The initial module was used for inclusionary and exclusionary purposes. Branching of the survey was limited but occurred for selected questions so that we could gain more information regarding job setting. Potentially sensitive items, such as salary range, were positioned near the end of the survey to allow participants to develop confidence in our research team before they answered these questions.¹⁰ Participants' responses were saved and recorded on progression to subsequent modules. Once a participant had progressed through the entire survey, the survey was sealed. A member of the research team assessed study progress and evaluated potential problems each day.

Procedures

Recruitment took place via an announcement at the Armed Forces Athletic Trainers' Society's annual meeting in June 2017 and word of mouth in the research team's professional networks¹¹ and with the assistance of the Armed Forces Athletic Trainers' Society's listserv and

social media. The survey instrument was available from the beginning of June through the end of September 2017.

On first entering the survey Web site, participants were provided with information on the purpose of the survey, contact information for the investigator and Office of Human Subjects Research, and an informed consent document. Beginning the survey indicated that the participant provided informed consent. Once a participant began the study, Qualtrics assigned a numeric code to the participant's response, which was used as the participant's identification number.

Data Analysis

Survey data were analyzed via descriptive statistics and frequencies for all closed-ended or Likert questions. All statistical analyses were performed using SPSS (version 24; IBM Corp, Armonk, NY). Six open-ended questions asked ATs about previous experiences that were beneficial to their current role, advice for ATs seeking employment in the military setting, the role of ATs in the military setting, past and current barriers related to their employment, and additional comments regarding their experiences working in the military setting. We used a thematic analysis approach to qualitatively analyze open-ended responses together and allow themes to develop across survey items.^{12,13} Two researchers (K.N.R., T.M.K.) independently read through the open-ended responses to become familiar with the data and then individually coded the data for core meanings and possible themes. They met to discuss similar codes and develop an initial coding framework, which contained key phrases, themes, and subthemes. This coding framework was referenced during 2 subsequent rounds of data analysis to identify patterns in respondents' quotes and interpret their meaning. These researchers met 2 additional times to discuss the codes, group similar responses into themes, and refine the themes and subthemes. In one instance, these researchers were not in agreement for a particular code; therefore, a third researcher (E.J.S.) served as a tie breaker. When consensus was reached, a peer debriefer was sent the raw data, coding framework, and quotes separated by themes and subthemes to confirm representativeness and cohesiveness. Multiple-researcher triangulation and the inclusion of a peer debriefer were used to enhance trustworthiness. To present the quantitative and qualitative data in a cohesive manner, we blended the findings and presented them by topic area.

RESULTS

The survey instrument was begun 63 times. Eight responses were from individual e-mailed links and 55 responses were from the anonymous link used for social media and word-of-mouth recruitment. The survey was accessed 8 times by participants who did not progress beyond the initial information and informed consent page, resulting in a total of 55 respondents who consented. Two responses were from individuals who did not meet the inclusionary criteria. Therefore, 53 responses from individuals who met the inclusionary criteria were analyzed. Participant demographic information is presented in Table 1. Respondents were primarily male ($n = 31$, 58.5%), white ($n = 47$, 88.7%), and not current or previous military service members ($n = 46$, 86.8%). The majority of

Table 1. Self-Reported Demographic Characteristics of Athletic Trainers Working in a Military Setting (N = 53)

Characteristic	Value
Sex, no. (%)	
Male	31 (58.5%)
Female	22 (41.5%)
Race, no. (%)	
White	47 (88.7%)
American Indian or Alaska Native	2 (3.8%)
Asian	3 (5.7%)
Other – white, Asian	1 (1.9%)
Age, y (mean \pm SD)	37.6 \pm 11.1
Board of Certification certified, y (mean \pm SD)	13.9 \pm 10.6
Highest level of education, no. (%)	
Baccalaureate	4 (7.5%)
Master's	42 (79.2%)
Doctorate	5 (9.4%)
Military service, no. (%)	
Active duty	1 (1.9%)
National Guard reservist	1 (1.9%)
Veteran	5 (9.4%)
None	46 (86.8%)
Time working in current military-setting position, y (mean \pm SD)	6.05 \pm 7.87
Time working in the military setting, y (mean \pm SD)	7.19 \pm 7.85

respondents (n = 46, 86.8%) were ATs currently working clinically in the military setting. Four (7.5%) respondents formerly worked clinically in the military setting. Three (5.7%) were current AT researchers working with military populations. Fourteen (26.4%) were working with intercollegiate athletics in a military academy.

Assessment of Job Responsibilities and Job Satisfaction

Characteristics of the respondents' current employment settings, or most recent employment in the case of respondents who formerly worked in the military setting, are presented in Table 2. Participants most commonly worked with the Army (n = 24, 45.3%). They were allowed to select more than 1 branch of the military; 7 worked with multiple military branches. Two reported *other*; 1 in a research capacity and 1 with ROTC. Three reported *other* for classification of their AT position: 1 contract with a public university, 1 graduate assistantship, and 1 Air Force reservist. Of the 15 who indicated that their position was classified differently in the past, 5 were previously contracted with an independent company, 7 were previously employed using non-appropriated funds, and 2 responded *other* (contracted individual set aside, National Security Personnel System). Of the 11 who worked with special operations units, 9 worked solely in this area. Another 2 estimated that 25% and 75%, respectively, of their time was devoted to special operations units. Sixteen respondents reported working at a service academy, of whom 14 worked with intercollegiate athletics.

Participants were asked to estimate the percentage of their time spent providing different categories of athletic training services using a sliding scale, with the total amount of time allotted required to equal 100%. The majority of

Table 2. Job Position Characteristics (N = 53)

Characteristic	Value, No. (%)
Branch of the military ^a	
Air Force	14 (26.4)
Army	24 (45.3)
Coast Guard	3 (5.7)
Navy	8 (15.1)
Marines	11 (20.8)
Time commitment of position	
Full time	50 (94.3)
Part time	3 (5.7)
Position classification	
Contracted position with an independent company	27 (50.9)
Non-appropriated fund employment	4 (7.5)
General schedule employment	19 (35.8)
Other	3 (5.7)
Was the position classified differently in the past?	
Yes	15 (28.3)
No	38 (71.7)
Do you work with Reserve Officer Training Corps (ROTC)?	
Yes	4 (7.5)
No	49 (92.5)
Do you work with special operations units?	
Yes	11 (20.8)
No	42 (79.2)
Do you work at a service academy?	
Yes	16 (30.2)
No	37 (69.8)

^a Could choose more than 1 option.

time was spent performing rehabilitation tasks (35.8% \pm 19.3%). Other categories of time were assigned to injury evaluation (30.6% \pm 22.2%), administrative duties (29.6% \pm 23.1%), injury prevention (27.8% \pm 22.7%), other duties (26.0% \pm 17.1%), technical athlete performance enhancement (17.0% \pm 19.3%), and emergency medicine (12.6% \pm 20.8%).

Self-reported salary ranges are described in Figure 1. Multiple Likert-scale questions were used to assess job satisfaction. Most respondents reported opinions corresponding to levels of satisfaction regarding base pay, current workload, and ability to use their skill set and experience in their current position (Table 3). The majority of those currently employed in the military setting were unlikely to seek athletic training employment outside of a military setting (n = 36, 85.7%).

Clinical Practice Context for ATs in the Military Setting: Qualitative Theme 1

The first of 3 qualitative themes summarized the context of the setting and ATs' clinical practice while working with the military. Select participant quotes to represent the theme and subthemes are shown in Table 4. Overall, these ATs believed it was a *rewarding experience* to provide care for individuals serving our nation. However, they also illustrated how the *military population and patient needs are unique* due to more being at stake for this patient population and the context of return to duty versus athletic participation. For example, recognizing the patient population's physical activity demands, such as carrying

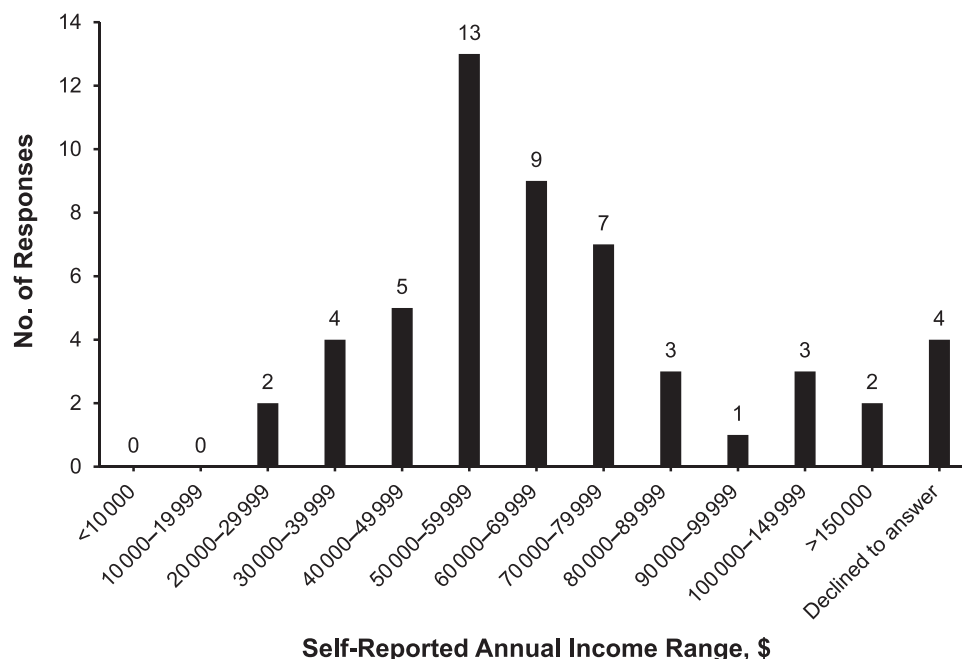


Figure 1. Self-reported annual income range specific to athletic trainers' working in a military setting.

heavy packs and preparing personnel to return to duty after injuries sustained in combat training or on the battlefield, were essential to the ATs' development of treatment plans. Lastly, although the participants highlighted the benefit of having a set work schedule in their *current role*, some indicated they could be more beneficial by *expanding the role* of ATs in the military. Role-expansion suggestions included reclassifying AT positions and allowing ATs to serve active-duty populations overseas.

Preparation for Working in the Military Setting

Respondents' opinions regarding their professional-(entry-) level athletic training program's ability to prepare them for working in a military setting were varied (Figure 2). However, the mode of responses indicated a neutral belief that professional-level coursework and clinical experiences prepared ATs for working within a military setting. Regarding additional certifications or credentials, certified strength and conditioning specialist (n = 16), Functional Movement Screen (n = 15), tactical strength and conditioning facilitator (n = 5), and emergency medical technician (n = 3) credentials were listed. Seventeen

participants reported having *other* credentials, including Graston technique (n = 7), corrective exercise specialist (n = 7), performance enhancement specialist (n = 3), dry needling (n = 2), and selective functional movement assessment (n = 2).

When asked which certifications, training, or postprofessional education were most beneficial to ATs, 5 areas emerged: postprofessional education and research (eg, master's degree or doctorate of athletic training degree, research experience; n = 16), performance and strength (eg, certified strength and conditioning specialist, performance enhancement specialist; n = 15), manual therapy (eg, Graston technique, active release, dry needling; n = 13), rehabilitation skills (eg, corrective exercise specialist, Rehabilitation experience; n = 9), and screening tools (eg, Functional Movement Screen; n = 5). Only a few respondents stated no additional certifications or training were beneficial to their daily work (n = 3).

Importance of Clinical and Interpersonal Skills: Qualitative Theme 2

In the second qualitative theme, ATs described the importance of clinical and interpersonal skills while

Table 3. Job Satisfaction, No. (%)

Rating	Satisfaction With Base Pay Compared With Individuals Performing a Similar Role in Other Athletic Training Settings	Satisfaction With Current Workload	Satisfaction With the Ability to Apply Skills and Experience to the Current Military-Setting Position
Extremely satisfied	13 (25.0)	9 (17.3)	18 (35.3)
Moderately satisfied	14 (26.9)	13 (25.0)	18 (35.3)
Slightly satisfied	7 (13.5)	13 (25.0)	7 (13.7)
Neither satisfied nor dissatisfied	3 (5.8)	8 (15.4)	1 (2.0)
Slightly dissatisfied	5 (9.6)	5 (9.6)	4 (7.8)
Moderately dissatisfied	7 (13.5)	4 (7.7)	3 (5.9)
Extremely dissatisfied	3 (5.8)	0 (0.0)	0 (0.0)

Table 4. Theme 1 Quotations: Clinical Practice Context for Athletic Trainers in the Military Setting

Rewarding

“There is not a population out there more deserving and in need of athletic trainers. It is not for everyone—these individuals protect our nation’s safety and volunteer to give their lives to do so. This is not a soccer game; they train and have eliminated the enemy. It is truly a humbling honor to serve those that serve our country.”

“It is a very rewarding setting to work in for those with the right mind-set. It can also be extremely emotionally difficult when a few of those you rehab back to health end up getting killed in action.”

Unique patient population and needs

“There is a lot more at stake with working with the military population than with traditional athletics. Their well-being can be a literal matter of life and death and as such you need to have a strong understanding of their job requirements to know best how to care for them.”

“Not only will you need to learn the military way of life, you need to learn that the same methods for rehab, treatment, or care may not be universally feasible among the different branches or military careers within the branches. You will need to be creative in your rehab techniques and teach troops self-care and treatment of their injuries...from using state-of-the-art equipment and supplies to nothing but whatever they can carry on their backs.”

Current role and future expansion

“This is a nontraditional role that pays athletic trainers very well, and we are given normal work schedules, weekends, and holidays off.”

“I still think there are many places that athletic trainers could play a vital role in the military setting. Not just in the basic training setting but ultimately an active-duty MOS.”

“ATs in the military would be better served if they were considered ‘military health care provider’ or ‘privileged providers’; ATs in the military have an opportunity to push the bounds of the AT scope of practice.”

Abbreviations: AT, athletic trainer; MOS, military occupational specialty.

working with the military. Select participant quotes for this theme are presented in Table 5. Developing *sound clinical skills*, applying *knowledge from education/research*, and exhibiting *interpersonal skills* were essential to ATs’ ability to work effectively in the military setting. Many participants stressed the importance of developing athletic training skills in any setting before working in the military. Others highlighted the benefits of working with specific populations (eg, Division 1 or elite-level athletics) or obtaining military-specific experiences (eg, personal military enlistment, previous work exposure in the military, working with universities’ ROTC units). Beneficial skill sets were in line with job expectations: ATs working in a research facility highlighted prior research training as critical to their success, whereas clinically practicing ATs described the value of additional certifications and credentials to address patients’ needs and prevent injuries. This finding mirrors the numerous certifications reported in the previous quantitative section; however, 1 AT advised that being the best possible AT was more important than additional certifications.

Interpersonal skills, such as adaptability, the ability to work in high-stress environments, effective communication, and learning to work with difficult people were also important to their success while working in the military setting. Prior development of “soft” skills was needed to demonstrate confidence and elicit respect when working in

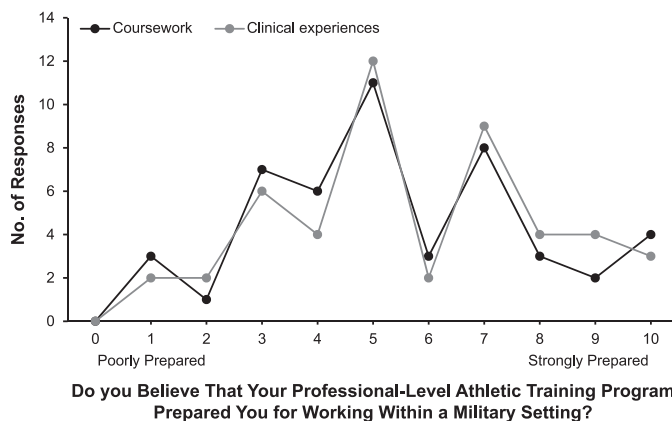


Figure 2. Beliefs about professional-level athletic training educational preparation for working within a military setting.

fast-paced environments and communicating with superiors. Regarding entrance into the military setting, resilience and persistence while applying for military jobs were also stressed. The need to continue applying (ie, for multiple postings or through multiple steps over a long period of time), actively improving one’s self, and displaying a willingness to learn were all cited as beneficial to gaining entry into this clinical setting.

Previous and Current Barriers Within the Military Setting: Qualitative Theme 3

Lastly, respondents discussed previous and current barriers experienced while working in the military. *Job availability and navigation through the hiring process*, *military culture*, and *lack of recognition* were described as challenges to working in this setting. Select participant quotes to represent this theme are provided in Table 6. It is important to note that 9 (17.0%) ATs did not report any barriers to working in the military setting. The remaining ATs elaborated on the limited number of jobs and lack of funding as barriers to their employment or continued employment. Finding a job was described as challenging because job postings may not use the term *athletic trainer* and are not easily searchable in one location. Furthermore, respondents expressed frustration over the cumbersome paperwork and lengthy hiring process, as well as the loss of funding for a position or changes in contractors once hired.

They also described the challenges related to their *civilian status military hierarchy/terminology*, as well as how military personnel’s *lack of understanding* of what ATs can do negatively affected their clinical practice. Military terminology or jargon and the hierarchy system were described as initial barriers that were eventually overcome through on-the-job learning; however, not all military terminology directly transfers between units or branches. Additionally, ATs reported their civilian status as a barrier to career advancement and influence on decision making for the care provided, which may shift if ATs’ job classifications change or as military personnel become more knowledgeable about the capabilities of ATs. Although they believed recognition of ATs by the military has improved, they stressed the need for ongoing advocacy for the profession. Two respondents noted that being female was a perceived barrier.

Table 5. Theme 2 Quotations: Importance of Clinical and Interpersonal Skills

Clinical Skills and Experience
General athletic training skills
“Work on your clinical skills; all the military-specific training can be taught on the job.”
“It is not an entry-level position. Seek employment elsewhere and work hard to build your trade craft such that you are more than competent and so that you become confident in your skill set. Work 3–5 years before applying to a military setting.”
Population specific: elite athletes, specific teams
“Get as much experience with high-level athletes as possible before looking at the military setting.”
“Must have worked with elite-level athletes in the past.”
Military specific: professional, personal
“Research. Find out as much as you can before getting into it. Try to do internships and job shadowing. Get as much exposure as possible.”
“Learn as much about the medical side of the military as possible; join the service if possible. Having military experience helps a lot in this setting. Learn as much from others who currently work in the military (whether it be soldiers or other athletic trainers); not every military athletic training job is the same.”
Professional development and research
“Obtain additional skill sets (CSCS, PES, CES, etc) to show additional skill sets to add to marketability. Experience with advanced wound care, amputees, trauma would also be beneficial.”
“Because I work in a research setting, my previous experiences in research prepared me the most for my current position.”
Interpersonal skills: resilience, confidence, adaptability, high stress
“There is a high amount of pressure to consistently perform well. The same applies to the military as their failure to perform can lead to dire consequences, especially with special ops.”
“This is not an entry-level position. You are working with a high-demanding staff that needs to know answers quickly. You really need to be confident in your ability to evaluate, treat, and recommend limitations to the chain of command. Even after attending grad school and working as a grad assistant, I still don't think I would have been ready for the demands here.”
“Keep being persistent in checking job postings and talking to people. Also be aware that you may not get hired as an athletic trainer, but you may still have the opportunity to work in similar capacities (ie, PTA), depending on where your job is located.”

Abbreviations: CES, corrective exercise specialist; CSCS, certified strength and conditioning specialist; PES, performance enhancement specialist; PTA, physical therapy assistant.

DISCUSSION

We identified the position and clinician characteristics of ATs working in the military setting. In addition, ATs' beliefs regarding job satisfaction, professional preparation, and opinions on the role of ATs in the military were evaluated. Respondents indicated high levels of job satisfaction and viewed their job as rewarding, despite barriers associated with hiring, military culture, and a need for AT recognition. Our findings demonstrated that ATs working in the military setting were highly qualified and many possessed additional degrees and certifications beyond professional-level preparation. These additional certifications may be necessary to provide a heightened level of care to address a military member's physical and functional demands or ATs' involvement in planning

Table 6. Theme 3 Quotations: Previous and Current Barriers Within the Military Setting

Job availability and navigating the hiring process
“It took me almost 6 weeks to get my background cleared and in process at my post. Not a lot of people wait that long.”
“Athletic trainer positions in the military are not always posted in easy-to-find locations. There is no central job board or site for military athletic trainer positions. Additionally, it is very hard for inexperienced individuals to be hired in a military setting, but it is also hard to gain military experience without being hired. There are many positions within the military that athletic trainers are qualified for, but within the military health system, athletic trainers are not utilized for positions such as PT aide.”
“Money, money, money. They like what we do here but it's hard to get the funding to get more ATs. The need is here.”
Military culture or status
“ATs embedded within a unit have little say as a civilian both as to final say as to what a member may or may not do physically and programmatically. Advisory role only. On the other hand, the members are most appreciative and take full advantage of services.”
“I didn't know most of their ‘jargon’ or what they actually did in training. They have so many acronyms that were difficult to learn. I had to observe a lot to figure out what they actually did in, say, ‘the defensive position,’ buddy rushing, ambush attacks, or what a live fire range looks like.”
Lack of athletic trainer recognition
“I also believe our career field is undervalued. The military will maximize the services that most clinicians are allowed to provide. For example, a PT has direct access and the ability to order/interpret radiology exams and prescribe prescription medications. There are restrictions to the meds and exams they can order. ATs on the other hand are not credentialed by the hospitals, which means they are not recognized as care providers.”
“In my current work setting, leadership is having a hard time deciphering between strength and conditioning coaches, athletic trainers, occupational therapists, and physical therapists and are placing us where they think we fit best for their mission.”
“The government alone puts barriers on the amount of many health care professionals working in a military setting. If the government does not understand our specific role or what these military men and women need, then they will not fund these health care professionals to be here. Advocating for what we do and how we can help military specifically is very important.”
None
“None. Check USAJobs or other military Web sites for job postings and apply.”
“None. The military continually has turnover, albeit slightly less than other settings; however, there are openings available, and it appears that there are more openings now than in the past.”

Abbreviations: AT, athletic trainer; PT, physical therapist.

physical training, creating functional return-to-duty exercises, or enhancing the physical performance of elite squads, such as special operations. Although participants were neutral regarding the ability of professional-level degree programs to adequately prepare an AT for this clinical setting, they advised ATs interested in working with the military to develop athletic training skills in any setting first, become familiar with the military way of life, network with ATs currently working in the military, and be persistent when applying for jobs.

Based on the historical roles of ATs in the Navy and Marine Corps, we expected respondents to primarily be working with these military branches. However, most

worked with members of the Army. Although unexpected, this finding was not surprising because the Army is the largest branch of the military. Our study included respondents who formerly worked in the military setting and those who currently worked with military personnel in varied roles (eg, researcher, intercollegiate athletics), so we believe our findings are transferable and provide valuable insight into ATs working in a military setting. The exact number of ATs employed in a military setting is not known at this time. Yet our sample size of 53 individuals was similar to the 74 respondents to the 2018 NATA salary survey who identified *military* or *military academy* as places of employment.¹⁴ In our study, the most commonly reported salary range was \$50 000–\$59 999, which agrees with the median annual salary of \$55 000 reported for this setting in the 2018 NATA salary survey.¹⁴ Our participant demographics differed from those of the NATA salary survey regarding sex, as 52.7% of military or military academy respondents to the latter were women.¹⁴ Although we did not evaluate benefits, which may play a role in job satisfaction, data from the NATA salary survey indicated that most military-setting ATs received retirement (81.1%) and medical (89.2%) benefits.¹⁴

In addition to characterizing compensation, we were interested in ATs' job satisfaction while working in the military setting. The majority of respondents were either extremely satisfied ($n = 13$, 24.5%) or moderately satisfied ($n = 14$, 26.4%) with their base pay when they compared their job with that of others performing similar roles in nonmilitary settings. Measures of satisfaction were also primarily reported regarding workload and the application of skills and experience to the respondents' positions. Similarly, the job satisfaction of ATs working in the collegiate setting has been associated with the level of clarity regarding their roles and the connection between personal and employer values.¹⁵ In the current study, the additional context of their work in the military was described as *rewarding*, which may be linked to the shared greater sense of purpose in serving our military personnel. Some ATs in our sample also noted the benefit of a set work schedule. Whereas jobs differed, contracted positions were often limited to 80 hours every 2 weeks, weekend duties had a different pay rate, and federal holidays were observed. This set schedule may decrease work-family conflict, thereby improving job satisfaction as well.¹⁶ Nonetheless, ATs in our study with lower levels of job satisfaction may have been more affected by reported barriers, such as inconsistencies in job responsibilities, position titles, or how their skills were being used or underused, while working with the military population.

Our aim was to contribute to the mission of the NATA, particularly the Committee on Practice Advancement. A stated mission of the Committee on Practice Advancement Military Working Group was to “improve dissemination of information in the AT community regarding employment (location of postings, requirements, knowledge, skills, and abilities).”¹⁷ Half of all respondents reported that their position was contracted through an independent company. Contracted positions are often less stable than direct government positions. A few participants specifically mentioned contracted positions and frequent changing of the company with which the government contracts as a barrier. In the military setting, other position classifications

include nonappropriated fund employment and general schedule (GS) employment. Nearly a third of respondents stated that their positions had been classified differently in the past. The civilian nonappropriated fund employment positions are not funded by Congress but by other, self-generated funding sources.^{18,19} The GS positions are civilian federal employees in professional jobs.²⁰ Positions range from GS-1 to GS-15, and persons with a master's degree qualify for GS-9 level positions.²⁰ The GS positions are typically posted on USAJOBS.gov.

In addition to the various employment models, ATs in our study elaborated on other military barriers, such as the tedious nature of finding jobs and navigating the hiring process. Although 1 respondent noted the improvement in job postings due to a centralized GS position Web site, it is understandably confusing for ATs to filter through job postings that do not clearly identify the athletic training credential. For example, some ATs were employed as physical therapy assistants or sports medicine injury-prevention trainers, and these position titles also varied across military branches. Once the hiring process began, changes in contractors, delays in background checks, and general bureaucratic “red tape” extended the time and complexity of the process. For ATs seeking employment within the military, our respondents counseled perseverance because the job would be worth it in the end. A lack of funding for AT positions was also commonly cited as a barrier to expanding the role of ATs in a military setting. Budget restrictions to increase AT positions may be diminishing, as the Marine Corps made funding an additional 40 AT positions a priority despite budget cuts in 2018.⁶

Although position descriptions and job tasks vary, general trends in clinical practice were identified. The majority of ATs' time was spent performing rehabilitation tasks ($35.8\% \pm 19.3\%$), followed closely by injury evaluations ($30.6\% \pm 22.2\%$). These job responsibilities are not surprising; however, our participants also wanted ATs to have more of a role with active military units and in the field, not just during military training (eg, basic training) or in a clinic setting. Two respondents suggested that ATs be deployed to active battlefields. If athletic training as a profession is added as a military occupational specialty (a substantial change in AT position classification), AT positions will move beyond the role of civilian contractor. Athletic training would then be a job classification option for active-duty military members, similar to the current position classifications for physical therapists, physicians, and physician assistants. Yet at this time, it is unclear if the military's desire to employ ATs is sufficient to warrant adding this military occupational specialty. This change in position characterization has the potential to dramatically influence the relationship between athletic training and military culture, and active-duty requirements (eg, deployment, location transfer) would accompany the ATs' new ability to contribute to decision making from within the military leadership structure.

In addition to the need for ATs to understand military culture, many respondents noted that ATs must be recognized by military members. Respondents specifically mentioned that the lack of recognition as health care providers affects AT medical care. In one case, a participant cited not having access to the Department of

Defense's electronic medical record system. This response was surprising, and it is unclear why this respondent lacked access, as other ATs in military-setting positions were using the medical record system in their daily practice. This example speaks to the wide variability in roles and responsibilities among different military branches and job positions. Similar to the challenges seen in other settings within the profession,^{21,22} differentiating AT medical care from personal training and educating stakeholders on ATs' scope of practice was cited as a barrier. A potentially unique barrier to the military setting was the ongoing need to educate military leadership on ATs' scope of practice because of frequent changes in leadership, as active-duty medical supervisors are often relocated or deployed. It should be noted that job descriptions, or KSAs (military acronym defined as knowledge, skill, ability), may differ or be more restrictive than an AT's traditional scope of practice. This disagreement between the typical AT scope of practice and that defined by the military-setting position description may cause conflict and contribute to the perceived barrier.

Responses also conveyed a feeling that other medical providers were actively trying to restrict ATs' roles and positions. Although some participants specifically cited physical therapy "turf battles," one person observed that "not all physical therapists are against athletic trainers." Physical therapists are often within the military-setting AT's chain of command, so positive interactions with active-duty physical therapists could aid in progressing AT recognition within the military. Physical therapists who had worked with ATs and those who had an understanding of AT's educational demands expressed more positive feelings toward ATs.²³ Our finding of the need for AT recognition is not new.^{21,22,24} These results further support the importance of professional recognition as a whole, with some military-specific needs identified regarding the current chain of command that provides oversight to ATs.

For ATs seeking employment in the military setting, participants recommended gaining general athletic training experience and working with elite athletes or combat sports first. This is not surprising, as students have reported that diverse clinical experiences during their professional education increased their confidence and perception of their preparedness to translate those skills to different settings in the future.²⁵ This advice to take time to gain experience and become established as a clinician may also explain some respondents' beliefs that the military should not be considered an entry-level position. Experience may better prepare ATs to adapt to their work setting and address the potentially large variability in the physical capabilities of military members. Based on our collective experience working in this setting, military members' capabilities range from those in entry-level training (eg, basic training) with limited physical activity before enlisting to special operations units with extreme performance demands. For ATs working with members in entry-level military training, prior experience with a high volume of patients or sports with high injury incidences can prepare them to focus on attrition, decrease lost duty days, and prevent injuries. At special operations commands, ATs provide care to a smaller population but have greater resources and can therefore also focus on human performance, optimization, recovery, and longevity.

Interestingly, the need for interpersonal, or soft, skills in addition to clinical skills was identified. Through our military-setting experiences, we have found that ATs may be called on to brief senior military leaders; thus, strong communication skills would be an asset. Requisition forms, memos of understanding, and military orders are all examples of documents and forms with which ATs will need to be familiar. Although ATs do not typically have the primary responsibility for creating these documents, their use and interpretation, as well as the feedback they generate, are often critical. This need for soft skills could provide an avenue for professional education programs to further prepare students for working in a military setting. Most programs are unable to expose students to clinical practice within the military setting, but the development of interpersonal skills can be addressed by all.²⁶ Early-career ATs identified conflict resolution, assertiveness, and confidence as areas of perceived inadequacy during their first 5 years of certification.²⁷ Findings from the current study, when viewed in context with these perceived inadequacies, highlight the need for interpersonal skill development in athletic training education programs. Furthermore, multiple respondents advised those interested in the military setting to network with ATs currently practicing in this setting. Mentorship, both formal and informal, has been cited as an aid in the transition to practice.²⁸ Based on our results, seeking mentors' guidance regarding soft-skill development would be advantageous.

Limitations

Although we followed procedures during survey development and data collection to enhance methodologic rigor, such as evaluating content validity and using multiple avenues for volunteer recruitment, our findings have several possible limitations. The primary mode of survey distribution was through professional networks and relied on membership in the Armed Forces Athletic Trainers' Association. This could have created bias in our sampling, as not all ATs working in the military setting are members of this professional organization. We were unable to calculate the sampling rate or representativeness because the number of ATs currently working in a military setting is unknown. Our data obtained were primarily descriptive in nature; however, they provide valuable initial insight into this clinical practice setting. In addition, despite our attempt to limit the time commitment of the survey, some respondents may have been unwilling to provide open-ended responses. Even though multiple rounds of review and revision were undertaken to improve clarity, respondents may have misinterpreted questions. The responses were from multiple military branches and included researchers and ATs at military academies who worked with intercollegiate athletics. Responses were pooled for this initial evaluation, but due to the variability in military-setting job positions, future evaluations may benefit from more specific population criteria. These results will generate a necessary dialogue regarding ATs' employment within the military, job characteristics, and perceptions of their experiences.

CONCLUSIONS

Overall, our findings indicate a high level of job satisfaction for ATs working in the military setting.

Participants often described the position as “rewarding” and recommended gaining other athletic training experience before working in the military. Additionally, learning about and adapting to the military culture, such as understanding the chain of command, military terminology, and ATs’ position as civilians within the military health care system, are important to ATs’ daily clinical practice. The ATs stressed the need for strong interpersonal skills and advanced their clinical practice through professional development. However, they stressed the uniqueness of each military setting position and noted that the most beneficial type of additional certification would depend on the location and services the AT provided for the specific work location and target population. Similar to ATs in other practice settings, ATs in the military felt the need to educate others on an AT’s scope of practice and advocate for the appropriate role of ATs. Ongoing advocacy for ATs may help address perceived barriers related to AT position availability, lack of funding, and the current job classification structure in the military. Our results offer an initial formal evaluation into athletic training in a military setting. Due to the current and anticipated growth in this practice setting, reexamining ATs’ professional characteristics, preparation, and barriers to clinical practice will be necessary as this setting evolves.

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