

An Assessment of Burnout in Graduate Assistant Certified Athletic Trainers

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Context: Graduate assistant athletic trainers (GAATs) must balance the demands of clinical care and the academic load of graduate-level students.

Objective: To examine burnout among GAATs with clinical assistantships at National Collegiate Athletic Association (NCAA) Division I institutions and to identify the personal and situational variables that are related to burnout.

Design: Cross-sectional study.

Setting: Division I universities offering graduate assistantship programs.

Patients or Other Participants: Two hundred one GAATs enrolled at NCAA Division I universities with graduate assistantship positions.

Main Outcome Measures(s): The Athletic Training Burnout Inventory, which assesses stress and burnout among ATs through 4 constructs: *emotional exhaustion and depersonalization, administrative responsibility, time commitment, and organizational support*. The 6-point Likert scale is anchored by 1 (*never true*) and 6 (*always true*).

Results: The GAATs who traveled with athletic teams (4.051 ± 0.895) and those who provided classroom instruction (4.333 ± 1.16) reported higher levels of stress due to time commitment than those who did not travel (3.713 ± 1.22) or teach (3.923 ± 0.929). We also found a difference in *administrative responsibility* across clinical settings ($F_{6,194} = 3.507$, $P = .003$). The results showed that GAATs in NCAA Division I clinical settings (44.55 ± 13.17 hours) worked more hours than those in NCAA Division III clinical settings (33.69 ± 12.07 hours) and those in high school settings (30.51 ± 9.934 hours).

Conclusions: Graduate assistant ATs are at risk for burnout because of the time necessary to complete their clinical and academic responsibilities and their additional administrative responsibilities. Graduate assistants who work in the Division I clinical setting are at greater risk for burnout than those in the secondary school setting because of the large number of hours required.

Key Words: time commitment, stress, emotional exhaustion

Key Points

- Graduate assistant athletic trainers (GAATs) exhibited burnout, even though they had only been certified as ATs for 1 to 2 years.
- The excessive number of hours worked caused GAATs to become burned out or experience symptoms of burnout.
- The GAATs with National Collegiate Athletic Association Division I clinical assistantships reported higher levels of burnout than did GAATs working in other clinical settings.
- Levels of stress and burnout were positively correlated with the average number of hours spent working per week in clinical settings.
- Participants with additional responsibilities, particularly teaching assistant duties, were at greater risk than others for burnout.

The roles and responsibilities of athletic trainers (ATs) have expanded to a variety of public and private settings. To help foster the professional development of the novice AT, graduate assistantship positions have been created in these settings. *Burnout* is defined as a negative response to chronic stress in which a person often is exhausted emotionally and physically because of the demands placed on him or her.¹ The condition is a timely and relevant topic to consider among graduate assistant ATs (GAATs) because of the number and daily distribution of hours required to meet the needs of patients, among other job-related responsibilities,^{2–5} which can be compounded by academic responsibilities not including teaching assignments. Although burnout among ATs has been considered frequently over the past decade,^{1–9} specific focus on the GAAT has been sparse.

Burnout can lead to exhaustion and indifference and is reported frequently by many service-oriented professionals, including ATs.^{1–9} Factors contributing to burnout among ATs include physical and emotional demands related to staffing shortages,¹⁰ lack of control over work schedules,¹⁰ large time commitment, role conflict, and increased workload.² A large athlete-to-AT ratio in a given setting also has been linked to increased burnout among ATs.^{2,4} Data from 2003 and 2009 demonstrated an average ratio of 80 athletes to 1 AT,^{11,12} supporting the proportional relationship between workload and burnout. Burnout among ATs is increasingly likely because of their dual roles as health care and human service providers, and it can be compounded by academic responsibilities, perhaps including teaching. Our investigation is framed in the context of previous research on work-related burnout

across a variety of settings. Most notably, researchers have examined extensively the construct of burnout among teachers, medical personnel, and police officers.^{10,13–16} Three major characteristics have become synonymous with burnout: *emotional exhaustion*, *depersonalization*, and a *lack of personal accomplishment*, providing the framework for the Maslach Burnout Inventory (MBI),^{13,14} which is one of the most frequently cited instruments among all burnout research.^{4,6–9,13–16} Recognizing the unique characteristics of specific professions, Cooper et al¹⁷ suggested that context-specific versions of the inventory are necessary to fully evaluate the influence of burnout in different settings. In 2008, Clapper and Harris⁶ developed an instrument to describe burnout specifically among collegiate ATs. Expanding the 3 constructs originally described by Maslach et al¹³ and Maslach and Jackson,¹⁴ Clapper and Harris⁶ identified 4 distinct characteristics of burnout in athletic training—*emotional exhaustion and depersonalization* (EEDP), *administrative responsibility* (AR), *time commitment* (TC), and *organizational support* (OS)—creating the Athletic Training Burnout Inventory (ATBI). Although their results indicated that the constructs of the ATBI were consistent internally, with all 4 constructs having α coefficients equal to or more than .80,⁶ this sample did not include GAATs.

Burnout has been examined extensively in the athletic training population using either the MBI or the ATBI among several subgroups, including collegiate ATs,^{4,6,8,9} high school ATs,² athletic training program directors,⁸ and most recently undergraduate athletic training students.^{18,19} Personal characteristics, particularly perceived level of stress, have been linked to burnout among ATs working in the collegiate setting.^{4,8} Findings from research studies have suggested that ATs demonstrating higher levels of perceived stress experience higher levels of burnout, particularly as indicated by the EEDP subscale.^{4,8} In addition, quality-of-life issues (ie, time to oneself or time spent on leisure activities) have been identified as possible reducers of burnout but also are linked as compounding factors to experiences of burnout.²⁰ Environmental characteristics linked to burnout include coaching pressure to medically clear an athlete for play,^{1,8} management of chronic athletic injuries,⁸ and increased workload (hours and number of athletes managed).^{2,8,19–21}

Despite a recent increase in research efforts focusing on burnout in athletic training, researchers have not examined constructs of burnout in GAATs, who are unique because they serve dual roles as health care professionals and graduate students and must learn the nuances of a new position and the responsibilities of a newly certified AT. Graduate assistant ATs make up an increasing percentage of professionals and leaders in the athletic training profession. Identifying warning signs of burnout in these early career professionals is especially important because they are learning to manage professional responsibilities along with personal obligations.²⁰ Moreover, because GAATs make up an increasing percentage of athletic training professionals and future leaders, burnout can influence retention within the profession.²¹ Therefore, newly certified ATs should be included in research efforts to gain a more accurate representation of both current and potential burnout in the athletic training profession. Examining burnout among GAATs is especially timely given the expansion of entry-level athletic training jobs in

the health care and corporate communities and the dearth of research in which burnout in this population has been examined.

Universities often use the graduate assistant position to provide additional staff members when funds for a full-time position are not available. Smaller institutions, which may not have graduate degree programs, often capitalize on the graduate assistantship position by partnering with a larger university with graduate degrees available to the students. Recognizing this potential relationship, we sought to include all universities sponsoring graduate degree programs with associated clinical assistantships in athletic training, regardless of the competition level (eg, college, high school). Our main purpose was to gain a better understanding of the potential for burnout among the GAATs. To this end, the first aim was to examine whether characteristics of the athletic training work environment (clinical hours, academic credit hours, number of ATs) were different across the following personal characteristics: sex, marital status, clinical setting, and degree sought and whether participants traveled with the team and had teaching responsibilities, teaching assistantships, or part-time jobs. The second aim was to examine relationships among characteristics of the athletic training work environment and the ATBI constructs. Third, differences in ATBI characteristics were examined across personal characteristics. Several hypotheses were established at the outset of the study: (1) GAATs would experience burnout because of the number of clinical hours they worked, (2) GAATs with a National Collegiate Athletic Association (NCAA) Division I (DI) clinical assistantship would report higher levels of burnout than other GAATs working in other clinical settings (eg, NCAA Division II [DII], high school), (3) levels of stress and burnout reported by GAATs would be positively correlated with the average number of hours spent working per week in clinical settings, and (4) GAATs who assumed additional roles beyond their primary clinical assignments (eg, teaching) would report higher levels of burnout.

METHODS

Participants

Participants were 201 ATs classified as *certified student members* by National Athletic Trainers' Association (NATA) membership categories and were employed as GAATs (clinical assistantships) while pursuing graduate degrees in DI university settings at the time of the study. Eligible respondents might not have assumed their clinical assistantships in the DI university settings but were enrolled as graduate students at particular universities with outreach to a local venue (eg, high school, NCAA Division III [DIII] school). Of this sample, 131 (65%) were women and 70 (35%) were men. Most were single (91%, $n = 183$), second-year graduate students (54%, $n = 109$). Most of the respondents were pursuing master's degrees (95%, $n = 191$), whereas the remaining respondents (5%, $n = 10$) were pursuing terminal degrees.

Instrumentation

Burnout was measured using the ATBI as developed and validated by Clapper and Harris.⁶ The instrument contains

62 items representing 4 constructs scored on a 6-point Likert scale, ranging from 1 (*never true*) to 6 (*always true*). The EEDP construct includes 18 questions that evaluate an AT's job frustration and level of emotional hardening. The AR construct includes 9 questions that evaluate the pressures associated with paperwork and other duties identified as administrative. The TC construct includes 4 questions and evaluates the amount of time necessary to complete the workday and how it is perceived to influence time away from home. The final construct, OS, includes 19 questions evaluating interpersonal relationships with supervisors and coworkers. After completing the ATBI questions, participants were instructed to complete 12 open-ended questions examining the role of clinical supervision within burnout and various demographic items, including sex; marital status; clinical setting (assistantship setting, eg, DI, high school); years of graduate school; degree sought; and whether the ATs traveled with a team, had teaching or instructing responsibilities, were teaching assistants (TAs), or had part-time jobs. The 12 open-ended questions were included to help clarify the responses of the closed-ended Likert scale questions and were developed as supplementary items based on the existing literature on burnout and role strain in athletic training. The data were evaluated but are not presented in this report.

Procedures

Data were collected during a 4-week period in the spring semester. After institutional approval to conduct the research was obtained, the NATA's member services provided the contact information of 846 members with the denotation of a certified student member. These NATA members were sent a recruitment e-mail, which included a description of the study, methodologic procedures, participation instructions, and a link to the online survey (SurveyMonkey, Palo Alto, CA). The survey took approximately 10 to 15 minutes to complete. After the surveys were completed, the data were recorded online at the host site. Two weeks after the original e-mail was sent, a final request for participation was solicited in a follow-up e-mail. The survey closed 2 weeks after the final request for participation.

Data Analysis

To address the first aim of the study, a separate analysis of variance (ANOVA) was performed to examine variation in number of clinical hours, academic credit hours, total number of ATs in a given setting, and ATBI scales across the following independent variables: sex, marital status, clinical setting, degree sought, and whether participants traveled with the team, had teaching responsibilities, had teaching assistantships, or had part-time jobs. The second aim of the study was examined with Pearson product moment correlation analyses, which were used to examine relationships between clinical hours, academic credit hours, number of ATs, and the ATBI scales. Because the ATBI scales were correlated, multivariate analysis of variance (MANOVA) was performed to address the third aim of the study, which was to determine whether the ATBI scales varied across the independent demographic variables identified in the ANOVA analyses. Tukey post hoc

analyses were used to examine differences between groups for factors with more than 2 variables (ie, clinical setting year of graduate study and degree sought).

RESULTS

Response Rate and Descriptive Statistics for Demographic Variables

Reliability was established for each of the 4 constructs within the survey (EEDP, $\alpha = .82$; AR, $\alpha = .81$; TC, $\alpha = .74$; OS, $\alpha = .69$). The ATs worked an average of 39.0 ± 13.5 hours in their clinical settings, were enrolled in 10.0 ± 3.5 graduate credit hours, and were assisted by an average of 10.0 ± 8.0 ATs in their work settings. Of the 846 surveys that were distributed through e-mail, 201 (24%) certified students responded, were enrolled, and had their data analyzed accordingly.

Differences in ATs' Environmental Variables Across Personal Variables

As presented in Table 1, ANOVA results were different for number of clinical hours across clinical setting, degree sought, travel, and part-time job responsibilities. Post hoc analyses indicated that ATs at DI schools worked more hours than those at high schools, those at DIII schools, and those reporting instructor or teacher and other settings. The GAATs who worked for travel teams and who did not have part-time jobs also reported more hours. The GAATs working for travel teams and those in the third year of graduate studies reported taking more graduate credit hours than did ATs working for nontraveling teams, master's and PhD students, and those in their first and second years, respectively. The ATs with teaching responsibilities reported more ATs in their settings than those who did not teach, those working only as instructors or teachers (clinical setting) reported more ATs compared with all other settings, and those at DI schools reported more ATs in their settings than those at DII schools.

Relationships Between ATs' Environmental Variables and ATBI Scales

Results indicated a low positive correlation between graduate assistant hours and TC ($r = 0.29$, $P < .001$) from the ATBI scale. Interscale correlations for the ATBI were all low to moderate and positive (r range, 0.31–0.42; $P < .001$); however, OS and AR were not correlated ($r = 0.05$, $P = .47$) (Table 2).

Differences in ATBI Scales Across Personal Variables

Descriptive statistics for the ATBI scales presented in Table 3 indicated that TC was the greatest source of burnout, followed by OS, EEDP, and AR. The MANOVA results were different for clinical setting (Pillai's = .31, $F_{4,20} = 3.19$, $P < .001$), and the results of univariate tests were different for AR ($F_{5,199} = 3.98$, $P = .002$) and TC ($F_{5,199} = 2.48$, $P = .03$). Post hoc analyses indicated that ATs in DIII, high school, and other settings reported higher AR scores than did ATs at DII schools, and higher TC scores were reported by DI ATs than by those in high school settings. The MANOVA results for travel also were

Table 1. Mean Comparisons of Independent and Continuous Variables Affecting Stress in Graduate Assistant Athletic Trainers (N = 201)

Variable	Clinical Hours			Graduate Credit Hours			Total Athletic Trainers ^a		
	Mean ± SD	F	df	Mean ± SD	F	df	Mean ± SD	F	df
Sex		2.99	1198		0.017	1199		0.365	1199
Male	40.83 ± 13.22			9.79 ± 3.583			10.81 ± 9.159		
Female	37.39 ± 13.53			9.85 ± 3.467			10.08 ± 7.726		
Marital status		0.89	1198		1.288	1199		0.359	1199
Single	38.87 ± 13.43			9.74 ± 3.402			10.22 ± 7.813		
Married	35.72 ± 14.20			10.72 ± 4.376			11.44 ± 11.98		
Clinical setting		8.73 ^b	6194		2.009	6193		6.139 ^b	6194
National Collegiate Athletic Association Division I	44.55 ± 13.17			9.40 ± 2.889			12.28 ± 6.257		
National Collegiate Athletic Association Division II	37.34 ± 10.99			9.83 ± 2.989			7.31 ± 5.373		
National Collegiate Athletic Association Division III	33.69 ± 12.07			9.69 ± 2.750			5.85 ± 2.230		
High school	30.51 ± 9.934			10.16 ± 4.540			8.63 ± 10.697		
Instructor or teacher	29.00 ± 10.25			10.00 ± 4.583			24.40 ± 16.53		
Other ^c	32.18 ± 14.71			11.09 ± 2.700			7.73 ± 9.166		
Year of graduate study		0.42	2197		6.580 ^b	2197		1.085	2198
1	39.40 ± 14.40			9.72 ± 2.786			11.53 ± 8.785		
2	38.39 ± 12.59			9.59 ± 3.625			9.33 ± 6.694		
3	35.00 ± 17.53			12.38 ± 3.998			12.38 ± 17.55		
Degree sought		4.02 ^d	2197		9.488 ^b	2197		2.626	2198
Master's	39.19 ± 13.33			9.59 ± 3.200			10.27 ± 7.777		
PhD	31.67 ± 15.06			12.67 ± 3.670			16.50 ± 18.77		
Other	24.00 ± 8.216			15.40 ± 7.570			5.40 ± 2.702		
Travel ^e		35.54 ^b	1198		8.237 ^f	1199		0.052	1199
Yes	41.20 ± 12.94			9.48 ± 2.754			10.27 ± 7.304		
No	28.08 ± 10.27			11.22 ± 5.390			10.60 ± 11.36		
Teaching or instructing		1.14	1198		0.253	1199		6.542 ^d	1199
Yes	36.17 ± 10.14			9.53 ± 2.968			13.83 ± 10.86		
No	39.01 ± 13.98			9.88 ± 3.590			9.72 ± 7.560		
Teaching assistant or aide		2.47	1198		2.011	1199		0.468	1199
Yes	35.50 ± 12.37			10.55 ± 2.984			11.16 ± 9.018		
No	39.31 ± 13.68			9.66 ± 3.596			10.14 ± 8.063		
Part-time job		11.44 ^b	1198		0.787	1199		0.033	1199
Yes	30.79 ± 9.67			9.29 ± 2.580			10.07 ± 9.899		
No	39.85 ± 13.62			9.92 ± 3.625			10.38 ± 7.970		
Total	38.59 ± 13.49			9.83 ± 3.499			10.33 ± 8.238		

^a Indicates number of athletic trainer coworkers in each category.^b Indicates $P \leq .001$.^c Clinical setting other included assistantship assignments not classified within the traditional clinical settings and included physician extender positions and clinical rehabilitation setting.^d Indicates $P \leq .05$.^e Travel was self-reported by the participant and referred to medical coverage provided by the athletic trainer at an away venue with his or her team.^f Indicates $P \leq .01$.

different (Pillais = .08, $F_{4,196} = 4.12$, $P < .01$), indicating that ATs who traveled reported higher TC scores. In addition, results for TAs (Pillais = .05, $F_{4,196} = 2.73$, $P = .03$) were different. Univariate analyses indicated that ATs who were TAs reported higher EEDP scores ($F_{1,199} = 6.25$, $P = .01$) and OS scores ($F_{1,199} = 7.992$, $P = .005$) than did those who were not TAs.

DISCUSSION

The motivation behind our study was related to limited data in the literature among people who serve as graduate assistants, especially as they pertain to burnout. As demonstrated in the burnout literature,^{4,18} younger health

care providers both inside and outside of athletic training are more likely to have burnout, so this was the impetus behind our study. The graduate assistant position was created to help provide support to athletic programs in a variety of roles, including coaches, strength and conditioning specialists, and ATs. Although the position is beneficial to both the institution and the person assuming the role, it often entails a balancing act between academic and professional responsibilities. Role conflict and overload due to stress and the time needed to meet work responsibilities have been documented in this population,²² and it is plausible that role overload due to the number of hours worked can lead to burnout in this population. Role

Table 2. Pearson Product Moment Correlations Between Demographic Variables and Athletic Training Burnout Inventory Subscales

	Graduate Assistant Hours	Credit Hours	No. of Athletic Trainers	Emotional Exhaustion and Depersonalization	Level of Stress Related to Administrative Responsibilities	Level of Stress Related to Time Commitment	Level of Stress Related to Organizational Support
Graduate assistant hours	—						
Credit hours	−0.04	—					
No. of athletic trainers	0.04	−0.03	—				
Emotional exhaustion and depersonalization	0.07	0.02		—			
Level of stress related to administrative responsibilities	0.01	0.12	−0.02	0.36 ^a	—		
Level of stress related to time commitment	0.29 ^a	0.06	0.08	0.31 ^a	0.42 ^b	—	
Level of stress related to organizational support	−0.07	0.09	0.10	0.48 ^a	0.05	0.18 ^b	—

^a Indicates correlated at $\alpha = .01$ (2 tailed).

^b Indicates correlated at $\alpha = .05$ (2 tailed).

strain, which is a form of role overload or conflict, recently has been linked to burnout among undergraduate athletic training students,¹⁹ making this correlation more conceivable. Studying burnout in the graduate student population is especially important because of the time needed to fulfill the dual roles of AT and student; heightened stress experienced by athletic training students not only jeopardizes the health and wellness of the care provider but jeopardizes the quality of patient care.

The results generated support our first hypothesis that GAATs would experience burnout. In this case, it is particularly due to the number of clinical hours, corroborating the third hypothesis. The results also indicated that other responsibilities, including administrative tasks and TA duties, can increase stress and lead to burnout. Four major findings were identified from the data and add to the existing literature on burnout in the AT profession: (1) The number of clinical hours worked per week was associated with the risk for burnout; (2) TC and OS were strong predictors of burnout for GAATs; (3) AR was a greater source of stress for noncollegiate certified athletic training students, whereas TC was a greater source of stress for collegiate graduate assistants; and (4) assuming a role as a TA created the potential for more reported experiences of EEDP and OS.

Clinical Hours

The profession of athletic training often is characterized by its time intensiveness or long work hours,^{12,20,23} so we were not surprised that GAATs reported working on average almost 40 hours per week; these hours are comparable with those of a full-time staff member during the off-season.^{7,12} However, this number does not take into account the time spent traveling with teams or educational and research responsibilities, which might increase the actual time spent meeting “job-related” responsibilities because they are serving in dual roles: student and AT. The issue of time has permeated the literature on graduate assistants. For example, Reed and Giacobbi²⁴ found that time management (encompassing the idea of very long hours) was a major source of stress for GAATs at the DI clinical setting. This is consistent with the findings of Seraphin and Bruening,²² who examined role conflict in graduate assistants working in the DI clinical setting and

found that limited time for other obligations beyond their work roles (eg, coaching duties, athletic training duties) was a major contributing factor to role conflict. Hours worked also has been found to be a compounding factor for role strain, which is a constituent of role conflict for dual-position physical educators and ATs in the secondary school setting.²⁵

Athletic departments have long employed graduate assistants to provide support staff within budgetary constraints in a variety of positions, including ATs. The reason is simple: to provide valuable experiences to those wanting to gain more experience in their intended fields both academically and clinically while providing services to the departments that employ them. However, graduate assistants often find balancing the academic and work roles difficult because both require time and energy, which often are limited.^{22,26} In addition, students spent almost 4 times as many hours at their clinical setting as they did in enrolled graduate credit hours. Although we do not know how much additional time students spent studying, these results provide evidence that job-setting responsibilities outweigh academic ones.

Interestingly, the GAATs who were serving at the high school or non-DI level reported working fewer hours than did those at the DI level. It may be that the demands were less or the timeframe of the hours was different, limiting the total number of hours available for the GAAT to work. Despite the differences, all graduate students, regardless of clinical site placement, were working well beyond what often is considered to be a normal amount of contracted hours. Many educational programs that employ GAATs often follow guidelines that set limits on work hours per week (typically 20 hours); however, it appears that those requirements are not enforced strictly or followed. Moreover, educational programs with NATA accreditation are instructed to strictly enforce hours recorded as clinical responsibilities to permit a manageable work schedule that allows completion of academic requirements.²⁷ Long work hours have been reported consistently in the literature as a precipitating factor to burnout.^{5,20,24,28,29} If regulations regarding work hours for the GAAT are not implemented or enforced, burnout is likely. Moreover, long work hours not only have been linked to burnout but have been

Table 3. Mean Comparisons of Independent Variables on Graduate Assistant Athletic Training (N = 201)-Related Stress Constructs

Variable (n)	Emotional Exhaustion and Depersonalization			Administrative Responsibility			Time Commitment			Organizational Support		
	Mean ± SD	F	df	Mean ± SD	F	df	Mean ± SD	F	df	Mean ± SD	F	df
Sex												
Male (70)	3.266 ± 0.5537		1199	2.902 ± 0.8233	3.218	1199	3.961 ± 0.9924	0.060	1199	3.734 ± 0.3800	0.003	1199
Female (131)	3.286 ± 0.5715			3.143 ± 0.9500			3.996 ± 0.9687			3.731 ± 0.4069		
Marital status												
Single (183)	3.273 ± 0.5684	0.271	1199	3.067 ± 0.9375	0.155	1199	3.970 ± 1.003	0.413	1199	3.725 ± 0.3988	0.710	1199
Married (18)	3.345 ± 0.5285			2.978 ± 0.6261			4.125 ± 0.6198			3.808 ± 0.3781		
Clinical setting												
National Collegiate Athletic Association Division I (98)	3.266 ± 0.5833	1.075	6194	2.991 ± 0.8446	3.507 ^a	6194	4.130 ± 0.8736	2.48 ^b	6194	3.681 ± 0.3897	0.609	6194
National Collegiate Athletic Association Division II (29)	3.299 ± 0.5096			2.578 ± 0.7919			4.121 ± 1.077			3.769 ± 0.3605		
National Collegiate Athletic Association Division III (13)	3.367 ± 0.7128			3.486 ± 0.9489			4.212 ± 0.8026			3.767 ± 0.2935		
High school (43)	3.254 ± 0.5357			3.335 ± 1.021			3.570 ± 0.9825			3.5792 ± 0.4896		
Instructor or teacher (5)	3.757 ± 0.2491			2.912 ± 0.4340			3.900 ± 1.376			3.853 ± 0.0525		
Other (11)	3.230 ± 0.4979			3.538 ± 0.8733			3.727 ± 1.272			3.783 ± 0.3705		
Year of graduate study												
1 (83)	3.227 ± 0.6345	1.355	2198	3.089 ± 0.9146	0.191	2198	3.955 ± 1.017	1.360	2198	3.736 ± 0.4198	0.594	2198
2 (108)	3.333 ± 0.5094			3.056 ± 0.9270			4.060 ± 0.9291			3.727 ± 0.3910		
3 (8)	3.218 ± 0.4044			2.860 ± 0.8919			3.250 ± 1.044			3.732 ± 0.2092		
Degree sought												
Master's (190)	3.281 ± 0.5688	0.455	2198	3.072 ± 0.9224	0.334	2198	4.013 ± 0.9711	1.607	2198	3.727 ± 0.4026	1.120	2198
PhD (6)	3.381 ± 0.3283			2.853 ± 0.7225			3.417 ± 0.8898			3.961 ± 0.2442		
Other (5)	3.066 ± 0.6429			2.824 ± 0.8355			3.550 ± 1.095			3.650 ± 0.2282		
Travel												
Yes (161)	3.290 ± 0.5788	0.318	1199	3.011 ± 0.8978	2.271	1199	4.051 ± 0.8954	3.926 ^a	1199	3.716 ± 0.3876	1.385	1199
No (40)	3.234 ± 0.5045			3.253 ± 0.9597			3.713 ± 1.220			3.798 ± 0.4307		
Teaching or instructing												
Yes (30)	3.478 ± 0.5159	4.468 ^a	1199	3.168 ± 0.9306	0.502	1199	4.333 ± 1.158	4.616 ^a	1199	3.797 ± 0.4763	0.945	1199
No (171)	3.244 ± 0.5663			3.040 ± 0.9114			3.923 ± 0.9292			3.721 ± 0.3816		
Teaching assistant or aide												
Yes (38)	3.482 ± 0.5151	6.246 ^a	1199	3.276 ± 0.7885	2.666	1199	4.138 ± 1.076	1.176	1199	3.894 ± 0.4507	7.992 ^c	1199
No (163)	3.232 ± 0.5659			3.008 ± 0.9347			3.948 ± 0.9495			3.695 ± 0.3748		
Part-time job												
Yes (28)	3.330 ± 0.5873	0.266	1199	3.061 ± 0.9701	0.000	1199	3.875 ± 0.9611	0.404	1199	3.716 ± 0.3965	0.056	1199
No (173)	3.271 ± 0.5616			3.059 ± 0.9065			4.001 ± 0.9785			3.735 ± 0.3979		
Total	3.279 ± 0.5641			3.059 ± 0.9131			3.984 ± 0.9747			3.732 ± 0.3968		

^a Indicates $P \leq .05$.

^b Indicates $P \leq .01$.

^c Indicates $P \leq .001$.

associated with work-family conflict and attrition from the athletic training profession.^{28,29}

Time Commitment and Organizational Support

Participants in this sample reported experiencing the 4 sources of stress representing burnout and defined by the ATBI, as noted by the moderate means reported in Table 3; with possible scores ranging from 1 to 6, scores were generally in the midrange (3.1 to 4.1). Moderate scores reported on burnout inventories are common in the athletic training literature.^{4,7,8,18} Complete parallels to previous research are not completely viable because most investigators used the MBI^{13,14} instead of the ATBI, which is specific to athletic training. Clapper and Harris,⁶ who developed and validated the ATBI, reported TC to be the primary source of burnout for DI ATs, followed by AR, EEDP, and OS. Generalizations are limited because the sample population, as presented from the results of Clapper and Harris,⁶ is from a small, regionally biased sample population within DI; however, the results were important in illustrating the uniqueness of the profession of athletic training and the factors specific to athletic training that can lead to burnout. Although we are one of the first groups to use the ATBI, what can be garnered from our results is that GAATs experience burnout because of the TC and the level of OS provided in their athletic departments. These findings are comparable with those of Clapper and Harris,⁶ particularly related to age and perceptions of OS, in which less experienced ATs rated OS lower than more experienced ATs.

In one of the earliest studies in which burnout in athletic training was examined, Capel² found that the number of work hours predicted burnout, and this trend has continued in other research studies.^{4,6,8,20,24,29} Time commitment related to completion of both academic and clinical responsibilities was reported recently as a precursor to burnout among a group of students enrolled in accredited undergraduate athletic training programs.¹⁹ Unfortunately, the role of the GAAT is time consuming, with most time spent providing medical care and what time is left over dedicated to academic requirements; very little time remains for personal rejuvenation, which is an important element for stress reduction and maintenance of professional commitment.^{30,31} As in the study by Clapper and Harris,⁶ GAATs (considered young professionals) reported lower levels of OS and perceived the demands on their positions as high when compared with those of other full-time staff members. The role of OS, specifically regarding supervising ATs and coworkers, has been linked to successful fulfillment of work-life balance for the AT at the DI level.³⁰ *Organizational support* has been defined as the resources provided to employees to help them feel valued and respected within the organizational infrastructure and to help them meet their professional and personal needs.³⁰ Recently, OS also has been linked to reduction in experiences of burnout for the undergraduate athletic training student.¹⁹ Perhaps the perceptions and responses to the ATBI by these GAATs reflect the treatment they receive from supervisors and coworkers, which is more indicative of a full-time staff member than of a graduate assistantship position. This behavior might be important for skill development and

confidence but also might send the negative message that clinical responsibilities are more important and take precedence over other responsibilities, such as academic and research requirements. Regardless, organizational leaders, human resource personnel, and young athletic training professionals must recognize that during the early years of professional socialization, the demands placed on the AT, especially the GAAT, can be high and often overwhelming.²⁰ When low perceived OS, which was reported by this group of GAATs and others who work in the DI clinical setting,²⁰ is coupled with the extensive TC required of the position, the work environment can create the potential for burnout.

Administrative Responsibilities Versus Time Commitment

An interesting finding revealed by our data stems from the differences between GAATs working in the DI clinical settings and those employed in the high school clinical setting, which partially confirmed our second hypothesis about clinical assistantship assignments. As discussed, TC was the catalyst for burnout in this population of DI GAATs, but high school GAATs reported more stress from their administrative roles than the TC required by their positions. As highlighted by the number of reported weekly hours, which demonstrates an almost 8-hour difference, the hours are not nearly as high for high school GAATs. This finding is corroborated by investigators examining attractors to the high school level, who demonstrated that women in particular are drawn to this setting because of the less demanding nature of the environment and the additional time available to attend to personal obligations, interests, and domestic responsibilities.³² Therefore, in part, those who assume the graduate assistant role at the high school level are afforded more reasonable work schedules as they relate to the hours necessary to provide adequate medical coverage. Moreover, those who assume a role as a GAAT might be doing so in a structured educational program (postprofessional athletic training program), which monitors and adheres to the traditional 20-hour clinical requirement rule. The stress related to AR often is associated with a time-intensive component of the profession but, as indicated in the ATBI, is considered a separate contributing factor for burnout. The theoretical framework of socialization often has been used to investigate career choice and attraction to a particular profession or work role^{33,34} and might help to explain the responses of high school GAATs in relation to burnout. The process of socialization, which can be formal or informal, allows ATs to be inducted into their roles^{35,36} but often is associated with an initial adjustment period, particularly if the role is new or unknown to the person. Investigating role conflict in DI athletic department graduate assistants, Seraphin and Bruening²² found that a formal socialization process consisting of a 1-day orientation to review policies and procedures could reduce the stress related to the unknowns of their positions. Many of the GAATs probably accepted positions as high school ATs to gain valuable experience with that level for the future, but they lacked experience in the clinical setting and might have been overwhelmed by some of the nuances associated with the position but not directly related to

patient care. Researchers in the high school setting have found that ATs who received professional training as students in this particular clinical setting were more equipped to handle the responsibilities or at minimum were aware of the responsibilities of the AT in the high school setting.³⁷ This finding has implications for both undergraduate and postprofessional athletic training programs because it illustrates the importance of professional socialization through education and hands-on training, which might be one strategy that helps reduce the occurrence of burnout for newly certified ATs in new work environments.

Additional Responsibilities

Graduate assistant ATs who were serving in a TA role in addition to their clinical responsibilities and academic duties reported greater levels of burnout than those who did not have the additional roles. The TA role often includes time spent in and out of the classroom, lesson planning, and class management. Graduate assistants commonly must split time and effort between this role and clinical responsibilities. The model is comparable with a dual instructor position at many smaller universities and colleges. Role strain, which might have a direct influence on burnout, has been linked to the assumption of additional roles beyond those of the clinical assignment and patient care (eg, insurance paperwork, drug testing).³⁸ Role strain, which is related to the juggling act among academics, clinical responsibilities, and personal interests, has been reported as a potential factor for burnout in the undergraduate population¹⁹ because not enough time exists in the day to meet all of a student's obligations. Moreover, the role of a TA or clinical instructor might be new to GAATs, with a different set of expectations and responsibilities that can overwhelm or place additional stress on them. This is supported by the results of Reed and Giacobbi,²⁴ who demonstrated that adjusting or transitioning to the role of a newly certified AT was a major cause of stress for a GAAT. Furthermore, Henning and Weidner³⁸ suggested that people who receive adequate training or mentorship are more likely to adequately handle their roles and responsibilities than those who receive less formalized training or education; therefore, supervisors and educators are encouraged to educate GAATs on their expectations and roles as instructors to help with role initiation and prevent unnecessary stress. In addition, sharing responsibilities with a peer AT or mentor and obtaining a complete job description at hiring can help decrease role confusion. Support or peer groups also should be encouraged because they might help those who are overwhelmed or new to their positions by providing an outlet to handle the stressors related to professional growth, thus reducing the potential for burnout.^{19,22}

Limitations and Future Direction

Given the low response rate (24%), our results should be construed with caution. Similar response rates have been reported in the AT literature, especially with electronic surveys,³⁹ and steps were taken to increase the response rate during data collection. To our knowledge, we are the first to use the ATBI exclusively with GAATs, and although the results are specific to athletic training and the ATBI has been validated, future investigators need to use the instrument to draw comparable conclusions. Data

collection took place over a 4-week period during the spring semester; therefore, it might not illustrate completely the experiences of the GAAT because time commitments and associated responsibilities might differ depending on the time of year. In the future, investigators should examine the cyclic nature of burnout by administering the questionnaire multiple times throughout an academic year. Assuming additional roles, specifically teaching, was found to cause burnout for this group of ATs. However, we did not investigate the influence of the role that the clinical instructor can play on the experiences of burnout. Most GAATs who are newly certified cannot serve in the capacity of an Approved Clinical Instructor; yet it is an important factor that should be investigated because role strain, which is a catalyst to burnout, is a concern for the AT. Finally, time and additional responsibilities appear to play the most important roles in burnout for GAATs; therefore, in the future, researchers might want to examine the role of formal mentorship in reducing the incidence of burnout. Although the data were not collected in this study, a comparison could be made between programs that offer more formalized postprofessional athletic training coursework and universities that offer a variety of graduate degrees. Postprofessional athletic training programs are required to adhere to a 20-hour workweek to maintain accreditation status, whereas other institutions that do not carry this distinction might believe they are at liberty to structure the workweek to meet institutional needs.

CONCLUSIONS

Our 4 main hypotheses were confirmed. Graduate assistant ATs, especially those who are employed in the DI clinical setting, work more hours than those in other clinical settings and are at greater risk for burnout because of the time necessary to complete work-related responsibilities, and those who have additional responsibilities, particularly TA roles, are at greater risk for experiencing burnout. Burnout is detrimental not only to the health and well-being of professionals but also to those around them and to the patients for whom they provide care. Moreover, the role of the GAAT is seen as a means to gain more experience and to become better acquainted with the roles and responsibilities of an AT; therefore, people who supervise those serving in this role must understand the academic and clinical demands being placed on them because they often lead to conflict and increased stress, which is a precursor to burnout. In the future, researchers should investigate role conflict, a documented occurrence associated with burnout in the general AT population. Gaining a better understanding of the mentoring and socialization processes, which occur in the early years of an AT professional, is also important because it influences their development of effective stress management and coping strategies, which might alleviate the experiences of burnout.

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