

Age, Sex, and Years of Experience: Examining Burnout Among Secondary School Athletic Trainers

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Context: Burnout is occurring in the athletic training profession. Although data on burnout are growing, the secondary school employment setting is often overlooked in research. With the employment of athletic trainers in the secondary school setting growing rapidly, a better understanding of burnout is warranted, as it has been linked to attrition.

Objective: To better understand burnout among secondary school athletic trainers using the Copenhagen Burnout Inventory (CBI), with a particular focus on differences between men and women.

Design: Cross-sectional survey.

Setting: Secondary school athletic trainers.

Patients or Other Participants: Athletic trainers who work in the secondary school setting were recruited via email to participate in the online survey. A total of 572 (373 women, 195 men, and 4 unreported) responses were included after we filtered out incomplete responses.

Main Outcome Measure(s): Participants were asked to complete an online survey, which consisted of demographic and workplace questions along with 3 scales (ie, Perceived Stress

Scale, CBI, and Work-Family Conflict Scale). Nonparametric analysis was used to investigate the differences in scale scores between groups.

Results: Participants reported a mean score of 40.1 (\pm 16.28) on the CBI scale. Women's scores were higher on the personal burnout subscale ($t_{570} = 24.501$, $P \leq .001$), work-related burnout subscale ($t_{570} = 11.347$, $P \leq .001$), and total CBI ($t_{570} = 9.423$, $P = .002$). Participants who were ≤ 30 years of age scored higher on the personal burnout subscale ($t_{515} = 5.53$, $P = .019$), work-related subscale ($t_{515} = 7.812$, $P = .005$), and total CBI ($t_{515} = 4.194$, $P = .041$). Those with ≤ 3 years of experience scored higher on the personal burnout subscale ($t_{570} = 11.213$, $P \leq .001$), work-related burnout subscale ($t_{570} = 6.557$, $P = .010$), and total CBI ($t_{570} = 4.722$, $P = .030$).

Conclusions: Low levels of burnout are being reported among secondary school athletic trainers. Female athletic trainers experienced greater levels of burnout, as well as personal and work-related burnout. Early-career athletic trainers also reported higher levels of burnout, suggesting the need for more support during this time.

Key Points

- Secondary school athletic trainers self-reported low levels of burnout as measured by the Copenhagen Burnout Inventory.
- Secondary school athletic trainers with ≤ 3 years of experience described higher levels of burnout, indicating the need for intervention with coping mechanisms.
- Female athletic trainers employed in the secondary school setting displayed higher overall levels of burnout, as well as more personal and work-related burnout.

Athletic trainers (ATs) have reported experiencing burnout, and the causes are multifactorial but often linked to long working hours, patient overload, and incongruity with work roles and professional identity.^{1–6} Burnout is conceptualized as a degree of physical and psychological fatigue experienced by a person that can be attributed to personal, work, or client-based stress.^{7,8} Individuals working in the health care industry, especially ATs, are at risk for burnout, as a large aspect of their job responsibilities is to advocate for and provide medical care to others, often in stressful situations.^{3,7} Additionally, burnout has been directly linked to early departure from the profession; however, factors specific to the secondary school setting are not often studied and warrant further investigation.⁹

Despite the copious data on burnout in ATs, the secondary school setting is not often examined individually but is rather coupled with the collegiate setting⁵ or all

employment settings.^{4,10,11} Yet the secondary school represents one of the largest employment settings among National Athletic Trainers' Association members.¹² This setting presents a unique platform for evaluating burnout. For example, the secondary school work environment has been described as family friendly and therefore a possible mitigating factor for burnout; nonetheless, ATs employed in this setting still report experiences of conflict.⁵ Many secondary schools employ only 1 AT, which would suggest that the workload is high and working hours are long, 2 precursors to burnout.^{13,14}

Due to the increase in scholarly interest in burnout, we have a better understanding of the complexity of the construct. Past researchers of ATs have used the Maslach Burnout Inventory¹⁵ to explore the construct. Although it is a valid and reliable scale for assessing burnout, the Maslach Burnout Inventory fails to conceptualize the complexity of burnout and the sources that can lead to burnout. Despite

being the most widely used instrument to empirically assess burnout, which gives it a monopoly,^{8,15} the downside is that burnout is defined by what the Maslach Burnout Inventory measures. Instead, the Copenhagen Burnout Inventory (CBI) offers researchers the ability to understand burnout from an individual perspective, as well as at a professional level. The CBI suggests that burnout can manifest from an individual's own life and perspectives on stress but also from his or her overall work and the clients to whom care is provided.⁸ At its core, the CBI assesses burnout through the lens of fatigue and exhaustion, which is parallel to the concept of burnout. Using reliable, valid, and multidimensional scales can offer researchers a broader perspective of the causes of burnout, with the possibility of developing effective strategies to reduce its occurrence. This is important due to burnout's potential effects on the AT's productivity, job performance, and level of commitment to the job.¹⁶

Graduate assistant athletic trainers also experience burnout.¹⁷ The graduate assistant role is characterized by professional infancy, as these individuals begin to gain clinical independence and learn their role as ATs with clinical autonomy. The transition to practice is often described as stressful and uncertain and, thus, creates the potential for burnout. Research on age and years of experience related to burnout in ATs is limited, but some leave the profession before the age of 30, and burnout may be the indirect cause.^{3,9} Moreover, the millennial generation (those born in the 1980s and early 1990s) has been described as the "burnout generation" in large part due to the demands of life and work.¹⁸ Although evidence appears to be mixed in regard to generational expectations, age, and years of experience on the job, some links exist to these variables and experiences of burnout.¹⁸

Discussions continue about the experiences of burnout among men and women, and mixed support exists for sex as a causative factor.^{1,19} However, for women, no connections have been found with the experiences of burnout and the decision to leave the profession.^{20,21} Female ATs reported greater levels of burnout than male ATs, and yet the latter described working more hours.^{10,22} Additionally, little is known about burnout with respect to age and years of experience. Even though burnout in graduate assistant ATs is known to occur,¹⁷ researchers have not studied it from the perspective of the transition to graduate-level education and the transition away from the graduate assistant position. Therefore, the purpose of our study was to better understand burnout among secondary school ATs, with a particular focus on the experiences of men and women as well as factors related to age and years of experience.

First, we predicted that secondary school ATs would experience moderate levels of burnout. Second, we expected female secondary school ATs would describe greater levels of burnout than their male counterparts. Third, we anticipated that female secondary school ATs would display greater levels of personal and work-related burnout than male secondary school ATs. Fourth, we predicted that no sex differences would be found in the experiences of client-related burnout among secondary school ATs. We also forecast that secondary school ATs under the age of 30 would relate greater levels of personal and work-related burnout. Finally, we believed that

secondary school ATs with >3 years of experience would report greater levels of burnout.

METHODS

Participants

A total of 573 secondary school ATs completed the web-based survey. On average, they were 36 ± 10 years of age and had 13 ± 10 years of experience as certified ATs. Of the 573 respondents, 65% (373) were women, 34% (195) were men, and 1% (4) did not provide their sex. More than half (53%, $n = 302$) were married, and 92% ($n = 526$) were employed full time in the secondary school setting. Table 1 supplies a full breakdown of the participant demographic data.

Procedures

A cross-sectional web-based questionnaire was used to assess burnout among secondary school ATs with a specific focus on sex differences and other demographic variables. Institutional review board approval was obtained before data collection. Participants were recruited using the Athletic Training Locations and Services database.²³ Emails were sent to 7386 potential participants during the spring of 2021, 831 participants began the survey (11% response rate), and 573 completed surveys were usable for data analysis (69% completion rate). Reminder emails were sent at 2 and 4 weeks after the initial distribution to improve the response rate.

Instrumentation: The Copenhagen Burnout Inventory

Participants were asked to complete the 19-item CBI questionnaire for burnout. We selected the CBI in its original structure due to its validity and reliability^{8,24}; the scale's assessment of categories of burnout, namely, personal, work, and client⁸; and its previous use in the AT population.^{3,22,25}

Investigators⁶ have advanced burnout research by demonstrating the complexity of the phenomenon and suggesting that exhaustion as documented in the occurrence of burnout can manifest from different life domains: the personal (physical and psychological fatigue and exhaustion experienced by the individual), the overall work experience (physical and psychological fatigue and exhaustion perceived by the person as related to his or her work), and the specific area of working with people or clients (physical and psychological fatigue and exhaustion experienced by the person as related to his or her work with clients). These domains correspond with the subscales of the CBI; (1) personal burnout, (2) work-related burnout, and (3) client-related burnout. Scores on the 3 subscales can be totaled to summarize burnout (range = 0–100), with lower scores indicating lower levels of burnout.⁸ Scores <50 are considered *low*; 50 to 74, *moderate*; 75 to 99, *high*; and 100, *severe burnout*.

The personal burnout (6 items), work burnout (7 items), and client-related burnout (6 items) subscales are measured using a 5-point Likert scale, as follows: 100 (*always*), 75 (*often*), 50 (*sometimes*), 25 (*seldom*), and 0 (*never or almost never*). All participants were also asked a series of demographic questions (eg, sex, age, years of experience, and years of employment).

Table 1. Participant Demographics (N = 572)^a

Characteristic	Value
Age, mean \pm SD (range), y	36.31 \pm 10.35 (22–73)
Sex, No. (%)	
Women	373 (65.1)
Men	195 (34.0)
Transgender woman	1 (0.2)
Not listed	1 (0.2)
Prefer not to answer	2 (0.3)
Marital status, No. (%)	
Married	302 (52.7)
Single	196 (34.2)
Cohabiting	53 (9.2)
Divorced	10 (1.7)
Engaged	5 (0.9)
Separated	3 (0.5)
Widowed	3 (0.5)
Certified athletic trainer experience, mean \pm SD (range), y	12.88 \pm 9.84 (0–44)
Employment setting, No. (%)	
Public	7 (1.2)
Private	173 (30.2)
Charter	79 (13.8)
Both public and private	273 (47.6)
Other	39 (6.8)
Employment status, No. (%)	
Full time	526 (91.8)
Part time	35 (6.1)
Other	11 (1.9)

^a Not all participants answered all questions.

Statistical Analyses

Demographic variables were sex, age, employment setting, years as a certified AT, and years in current workplace. Sex and years of experience were the independent variables. The dependent variable was burnout. Data were collected using Qualtrics software and downloaded to Excel (version 16.44; Microsoft Corp).

Data were cleaned, and responses were excluded if the participant left scales unanswered or completed <80% of the survey, or both. The responses that remained were further analyzed; descriptive statistics were used to calculate means for demographic information (Table 1). We conducted 1-sample *t* tests to determine the means for the scales and subscale scores. Nonparametric analysis (Kruskal-Wallis test) was performed to identify differences between groups, specifically the differences between sexes in the burnout and work-family conflict scale scores. We applied the same nonparametric tests to assess differences in scale scores between those who had ≤ 3 years of experience and those who had >4 years of experience. All analyses were completed using SPSS statistical software (version 27; IBM Corp), and an a priori α value of $P \leq .05$ was set for all statistical tests. The Cronbach α of 0.930 characterized the scale reliability in the population of ATs.

RESULTS

Our first hypothesis was rejected, as participants reported an overall low mean score of 40.1 (\pm 16.28) on the CBI scale. Similarly, low mean scores were evident on each CBI subscale: personal-related burnout = 46.91 \pm 18.39, work-related burnout = 44.44 \pm 17.70, and client-related burnout = 27.73 \pm 18.26. Burnout category percentages are

Table 2. Copenhagen Burnout Inventory Scores and Descriptive Frequencies (N = 539)

Variable (No.)	Score, % (No.)			
	Low	Moderate	High	Severe
Overall	74 (399)	24.3 (131)	1.7 (9)	0
Sex				
Men (186)	79 (147)	19.4 (36)	1.6 (3)	0
Women (350)	71.1 (249)	27.1 (95)	1.7 (6)	0
Age, y				
≤ 30 (204)	69.6 (142)	29.4 (60)	0.96 (2)	0
>30 (311)	75.9 (236)	21.8 (68)	2.2 (7)	0
Experience, y				
≤ 3 (94)	70.2 (66)	28.7 (27)	1.1 (1)	0
>3 (444)	74.8 (332)	23.4 (104)	1.8 (8)	0

presented in Table 2. Our second hypothesis was accepted, as women demonstrated a higher total mean burnout score than men. Women scored higher on the personal burnout subscale ($t_{570} = 24.501$, $P \leq .001$), work-related burnout subscale ($t_{570} = 11.347$, $P \leq .001$), and total CBI ($t_{570} = 9.423$, $P = .002$). These results supported our third and fourth hypotheses.

We dichotomized age into 2 groups, namely, those who were ≤ 30 years old ($n = 204$) and those who were ≥ 31 years old ($n = 311$). Participants who were ≤ 30 years of age scored higher on the personal burnout subscale ($t_{515} = 5.53$, $P = .019$), work-related subscale ($t_{515} = 7.812$, $P = .005$), and total CBI ($t_{515} = 4.194$, $P = .041$), which confirmed our fifth hypothesis. (Participants who did not report age or years of experience were excluded from the analyses of these factors; however, they were included in the analysis of other factors. Therefore, the number of participants in each analysis varied.)

Years of experience was also dichotomized into 2 groups for analysis: those with ≤ 3 years of experience or >3 years of experience. We dichotomized in this way because of role transition and role inductance. Transition to practice has been described as a dynamic process that takes a year or more to complete.²⁷ Our final hypothesis was accepted, as those who had ≤ 3 years of experience ($n = 94$) scored higher on the burnout scale than those with >3 years of experience ($n = 444$). Those with ≤ 3 years of experience scored higher on the personal burnout subscale ($t_{570} = 11.213$, $P = .001$), work-related burnout subscale ($t_{570} = 6.557$, $P = .010$), and total CBI ($t_{570} = 4.722$, $P = .030$).

DISCUSSION

Athletic trainers experience burnout.^{3,4,16,22} A primary reason is the emotional involvement that accompanies patient care, but another factor is the stressful work environment coupled with the sport setting (ie, secondary school, collegiate settings). Although a plethora of data exist on burnout in the profession, this research was often centered on the collegiate employment setting, as it is frequently characterized as arduous, stressful, and associated with long working hours, commonly at night or on the weekends.⁵ In addition, the secondary school setting is often organized following the sport model, yet it does not garner the same scholarly attention as the collegiate setting when it comes to burnout. As this setting continues to grow in employment opportunities for ATs, a better understanding of burnout is necessary. We also recognize that

Table 3. Copenhagen Burnout Inventory Scale Total and Subscale Scores by Sex

Scale or Subscale	Mean \pm SD		
	Men	Women	Overall
Total Burnout Inventory ^a	36.93 \pm 16.62	41.60 \pm 15.84	39.95 \pm 16.95
Personal-related burnout ^a	41.97 \pm 18.70	49.65 \pm 17.61	46.91 \pm 18.39
Work-related burnout ^a	40.78 \pm 17.55	46.37 \pm 17.54	44.44 \pm 17.70
Client-related burnout	27.33 \pm 18.16	27.96 \pm 18.34	27.73 \pm 18.26

^a Significant difference between men and women.

experiences of burnout can be individual, and causative factors can differ for each person; thus, we felt it was important to understand this variable in the secondary school AT.

Experiences of Burnout

The overall sample mean indicated that these secondary school ATs were experiencing low levels of burnout. Superficially, it may appear as though the COVID-19 pandemic did not have a large effect on the stress and work-life balance of our sample. We did not anticipate a low level of burnout, as the data were collected in spring 2021, when the effects of the COVID-19 pandemic were still being experienced. In a recent study of ATs in numerous employment settings collected in late 2019 through early 2020, the researchers found moderate levels of personal and work-related burnout and no or low levels of client-related and total burnout.⁵ It is possible that the participants in both samples had developed effective coping strategies to reduce the occurrence of burnout. We do not suggest that the secondary school setting is not stressful, but it does appear as though the stress is not prolonged.

Athletic trainers working in sport organizations often describe higher levels of stress, burnout, and work-family conflict,^{1,3,5,8,9} and the secondary school setting might also have higher levels. We recognize that the secondary school setting is largely driven by a model that mimics the athletic model, in which the AT reports to the athletic director, who is a nonmedical supervisor; this arrangement has been linked to role incongruence and a precipitating factor to increased role and job stress.¹⁴ However, we did not collect data on organizational infrastructure and its role in burnout; thus, future researchers should examine its effect on experiences of burnout.

Although we found overall low levels of burnout, this does not mean that burnout is not occurring in the secondary school setting, which again shows that providing patient care can cause burnout. Our results indicate that 73.5% of participants had a low level of burnout; 24.3%, a moderate level; and 1.7%, a high level. No severe burnout was reported. Compared with the findings of Giacobbi,⁹ our participants experienced similar (and perhaps less) moderate levels of burnout (34% versus 24%).⁹ A direct comparison regarding burnout is challenging, as no scale has been used universally in the literature; nonetheless, burnout can happen. We also refer to the time point at which the data were collected, as spring sport schedules may not cause as much burnout. Therefore, future researchers should conduct longitudinal studies or examine the fall sports season as well.

Sex and Experiences of Burnout

The literature on sex differences in relation to burnout has been mixed. Consistent with Naugle et al⁸ and Giacobbi,⁹ our female ATs displayed greater levels of burnout than their male counterparts. Burnout differences between men and women are not isolated to ATs, as women in various health and medical care fields noted greater levels of burnout than men.²⁷ Sex differences between men and women are also seen in sport, especially among female coaches.²⁸ Yet the findings of a 2021 meta-analysis²⁹ challenged the notion that women revealed higher levels of burnout than men. The authors determined that women were slightly more emotionally exhausted than men and men were slightly more depersonalized than women. Interestingly, larger sex differences have been shown in the United States than in the European Union.²⁷

Some of the sex differences observed in our sample and other studies could be explained by sociocultural factors such as gender norms and ideology that have been identified as offering an integrative approach to better understanding the work-life interface.³⁰ Societal-driven norms place different stresses on both sexes, which can create unique challenges for men and women in regard to maintaining work and family responsibilities. Women often indicate that they must constantly prove their worthiness.²⁸ It is women, more often than men, who interrupt their careers to have children, work part time, or leave work to take care of sick children or family members. Social norms not only make women feel that they must choose work or family but also impart a negative social connotation in choosing work over family.

Most researchers use the Maslach Burnout Inventory to measure burnout, a scale that does not account for types of burnout as well as the nonwork stressors that lead to the mental and physical fatigue associated with burnout.⁶ So, although comparisons can be made, our findings can only truly be associated with the work of Naugle et al,²² who also used the CBI, a more global measure of burnout. Sex differences were the most common similarities between our studies, with approximately 10 years between samples. We focused our sampling on a specific employment setting, whereas the participants of Naugle et al⁸ represented diverse employment settings.

Our unique contribution to the literature centers on the confirmation that both men and women experienced similar levels of burnout related to patient care. Working with patients has been identified as a causative factor for burnout, as it is emotionally draining at times. For ATs in particular, working long hours each week takes time away from leisure activities, home life, and other obligations that bring satisfaction.³ We suggest, however, that although burnout is present, our ATs did not appear to experience

burnout from their role providing care to their patients. This could indicate that the AT's professional identity provides a buffer from experiences of burnout due to the satisfaction gained from caring for patients. Our participants reported greater levels of work-related burnout, which could reflect that hours worked or a lack of control over work schedules is more exhausting than patient care.

Although we did not evaluate personality traits, past researchers⁵ found that ATs who were more compulsive⁵ or neurotic were more susceptible to burnout.³¹ Future investigators should assess the reasons behind these differences rather than simply identify them. Understanding how ATs cope with stress may offer more information to help reduce burnout.

Age and Years of Experience of Burnout

We not only hypothesized that those ATs with ≤ 3 years of experience would perceive greater levels of burnout but also predicted that those < 30 years old would also feel greater levels of burnout. Our results confirmed both hypotheses, which provide some support to the claims that the millennial generation is prone to experiences of "burning out."¹⁸ The millennial generation refers to those born between 1981 and 1996, and although they are open minded and independent, they also work longer hours and have significant financial debt due to college loans.³² Long working hours have been an ongoing concern for ATs and are linked to experiences of burnout.³ It is possible that the millennial generation, or youth in general, have not developed sufficient stress management or coping skills to offset burnout.

Depictions of newly credentialed ATs experiencing burnout are found in the literature.^{17,33} Even though educational reform has eliminated many of these positions, the concept of transition to practice is still very much present, and the process is known to be stressful and lengthy (up to 12 months).²⁷ Our expectation was that our participants would still be in a role transition period and in the process of developing and cultivating effective coping skills to manage their stress. Moreover, we understand that the transition to practice brings increased stress, a lack of confidence, and anxiety.³⁴⁻³⁶ As ATs begins to develop their professional identity, they exhibit professional insecurity.³⁴ To our knowledge, researchers have not directly investigated the relationship between age and experiences of burnout. Burnout has been superficially or indirectly connected with age, as the profession itself is young, and the departure of ATs from the field can be seen as early as 30 years old.^{1,3}

Future Research and Limitations

We examined only the secondary school setting and did not evaluate the role of organizational structure on experiences of burnout. Thus, future authors should continue to pursue the organizational and employment factors that can lead to burnout. Experiences of burnout can be personalized, and therefore, future researchers should investigate the role of individual factors such as age and personality type. We also suggest that it will be beneficial to characterize the effect that the caretaking role (be it for a child or elder relative) can have on burnout. The role of caregiver could increase a person's personal burnout

experiences. We did not collect data on parenting status, as our focus was on sex, age, and years of experience and why we think this information could be useful. A cross-sectional survey describes one point in time, and we recognize the need for longitudinal data to better understand the cyclical nature of the construct. Our data were collected during the COVID-19 pandemic, which was a period of increased stress for many. Hence, future researchers should investigate burnout when this unique period of time has passed. Additionally, we need to better identify the strategies being used by ATs to manage their stress and reduce the occurrence of burnout.

CONCLUSIONS

Although a large percentage of our sample reported low levels of burnout, it still occurred. Female ATs, ATs < 30 years old, and those with ≤ 3 years' job experience displayed greater levels of burnout, which suggests it is important to develop interventions to address burnout and its potential effect on patient care. Secondary schools are encouraged to onboard their newly credentialed ATs and continue to provide support to reduce the chance of burnout in this group. Interestingly, both male and female ATs acknowledged similar levels of patient-related burnout, which indicated that ATs find value in their role and may not become burned out from caring for their patients but rather from their work environment. Continued research is needed to fully understand experiences of burnout and its spillover to patient care, job satisfaction, and overall work-life balance.

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