

An Assessment of Burnout in Undergraduate Athletic Training Education Program Directors

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Context: Athletic training education program directors (ATEPDs) often manage their time among students, program administration, and patient care.

Objective: To assess the level of burnout in ATEPDs and to determine the relationship between burnout and various demographics of ATEPDs.

Design: Cross-sectional study.

Setting: Public and private colleges and universities nationwide.

Patients or Other Participants: Two hundred forty-nine ATEPDs of undergraduate athletic training education programs accredited by the Commission on Accreditation of Athletic Training Education.

Intervention(s): We administered the Maslach Burnout Inventory (MBI) to all participants.

Main Outcome Measure(s): The MBI consisted of 21 items assessing 3 characteristics of burnout: *emotional exhaustion*, *depersonalization*, and *personal accomplishment*. Another component of the survey requested demographic information about the ATEPDs. We used univariate, multivariate, and factorial analyses of variance with the α level set a priori at .05. We also calculated Pearson product moment correlation coefficients.

Results: Women had greater emotional exhaustion than men (20.67 ± 9.43 and 16.47 ± 9.64 , respectively) ($P = .001$).

The difference between tenure-status groups for emotional exhaustion was significant ($P = .014$), with tenure-track ATEPDs scoring higher on emotional exhaustion than tenured ATEPDs. Pearson product moment correlation coefficients revealed a weak negative relationship among emotional exhaustion and age ($r = -0.263$, $P < .001$), years of program director experience ($r = -0.157$, $P = .013$), and years at current job ($r = -0.162$, $P = .010$), indicating that as ATEPDs aged, gained more experience, and stayed in their current jobs, their emotional exhaustion scores decreased. There was also a weak negative relationship between age and depersonalization ($r = -0.171$, $P = .007$). There was a weak positive relationship between years at current job and personal accomplishment ($r = 0.197$, $P = .002$).

Conclusions: We found that ATEPDs experienced a moderate form of emotional exhaustion burnout and low depersonalization and personal accomplishment burnout, with women experiencing greater emotional exhaustion than males. Additionally, ATEPDs in tenure-track positions experienced greater emotional exhaustion than tenured ATEPDs. The ATEPDs need to obtain healthy coping strategies early within their directorships to manage components related to burnout.

Key Words: emotional exhaustion, depersonalization, personal accomplishment

Key Points

- Emotional exhaustion scores were higher for women, were higher for tenure-track participants, and increased as the number of years in the current positions increased.
- Emotional exhaustion scores decreased as the ages and experience levels of the athletic training education program directors increased.
- We found no difference between athletic training education program directors who had clinical responsibilities and those who did not on any of the subscale scores.
- Personal accomplishment scores increased as experience in current positions increased.
- Depersonalization scores were greater for athletic training education program directors who practiced 20 hours or more per week than for those who practiced 10 to 15 hours per week, and these scores decreased as age increased.
- Components of burnout need to be discussed with athletic training education program directors, and a plan for remediation needs to be implemented.

Burnout is defined as a negative response to stress and is a syndrome displaying 3 major characteristics: *emotional exhaustion*, *depersonalization*, and a lack of *personal accomplishment*.¹ This condition affects many professionals within various fields. Athletic training education program directors (ATEPDs) are in unique positions requiring them to manage their time among students, program administration, scholarship, and service, and, for many ATEPDs, components related to patient care.² The ATEPDs are responsible for the day-to-day

operation, coordination, supervision, and evaluation of all aspects of their athletic training education programs. Additionally, many are serving on committees at the institution, state, district, or national level. They also spend time advising and mentoring students and preparing for and teaching classes.

The advent of the Commission on Accreditation of Allied Health Education Programs in 1994 increased administrative responsibilities for ATEPDs (eg, self-study, increased paperwork).³ In addition to the program

administrative tasks and teaching responsibilities, ATEPDs often are required to engage in scholarly research, especially if they are in a tenure-track or tenured position.⁴ These increased academic responsibilities combined with either a clinical workload or scholarly activities can lead to increased stress. When the negative aspects of the position become stressful to the point of overshadowing the positive experiences, the ATEPD may become frustrated and experience burnout.⁵

Burnout is a concern within the athletic training profession, but few investigators have examined this issue.^{6–8} Hendrix et al⁷ assessed burnout using the Maslach Burnout Inventory (MBI) for certified athletic trainers (ATs) who were serving as clinicians only (no educational role) at the National Collegiate Athletic Association Division I level. They reported that clinically practicing ATs who scored lower on *hardiness* (a personality construct that reflects control, commitment, and challenge) and *social support* and higher on *athletic training issues* (high athlete-to-AT ratio, minimal financial support, and dual-role responsibilities) had higher perceived stress. The ATs with higher perceived stress scores, in turn, experienced emotional exhaustion, depersonalization, and lower levels of personal accomplishment. Capel⁶ assessed burnout for 332 clinically practicing ATs in the West and Southwest regions of the United States. Overall, ATs reported scores indicating low levels of burnout. Campbell et al⁸ assessed stress and burnout according to the Athletic Training Burnout Scale (ATBS) in ATs who attended the National Athletic Trainers' Association Clinical Symposium in 1984. They found that 40% of the respondents were considered burned out. The ATs who scored high on the ATBS were more likely to have 2 or more medical conditions (eg, fatigue, irritability, weight management problems, sleeplessness, depression, indigestion, and nervousness) than respondents who scored low on the ATBS. No researchers have studied burnout in ATEPDs; however, the ATEPDs experience stressors that are unique to their positions within the profession of athletic training. Potential stressors that lead to burnout in ATEPDs need to be identified. This information will help to formulate a plan to lessen the stressors affecting ATEPDs and, in return, help to prevent burnout. Investigation into burnout can enhance the work environment, increase morale, and increase effectiveness. The purpose of our study was to assess burnout in ATEPDs in undergraduate athletic training education programs accredited by the Commission on Accreditation of Athletic Training Education (CAATE). A secondary purpose was to determine the relationship between burnout and various ATEPD demographics.

We had 7 hypotheses. First, we hypothesized that women would experience more emotional exhaustion than men and that men would experience more depersonalization than women. Second, we hypothesized that ATEPDs in tenure-track and non-tenure-track positions would experience higher emotional exhaustion and depersonalization scores and lower personal accomplishment burnout scores than tenured ATEPDs. Third, we hypothesized that ATEPDs with clinical responsibilities would experience higher emotional exhaustion and depersonalization burnout scores and lower personal accomplishment burnout scores than those ATEPDs without clinical responsibilities.

Fourth, we hypothesized that we would find a strong negative relationship between age and emotional exhaustion and depersonalization (ie, as age increases, emotional exhaustion and depersonalization scores decrease) and a strong positive correlation between age and personal accomplishment (ie, as age increases, personal accomplishment scores increase). Fifth, we hypothesized that we would find a positive relationship between Carnegie basic classification level and emotional exhaustion and depersonalization scores and a negative relationship between Carnegie basic classification level and personal accomplishment scores.⁹ Sixth, we hypothesized that ATEPDs with more experience would have lower emotional exhaustion and depersonalization scores and higher personal accomplishment scores. Seventh, we hypothesized that we would find a strong negative relationship between years at current job and emotional exhaustion and depersonalization scores and a strong positive relationship between years at current job and personal accomplishment scores.

METHODS

Participants

We contacted 336 ATEPDs at undergraduate athletic training education programs accredited by CAATE to participate in our study. Of those, 249 (74%) responded (age = 41.19 ± 7.99 years, years of ATEPD experience = 7.79 ± 6.64 years, years at current institution = 8.84 ± 7.11 years, years as an AT = 17.34 ± 7.38 years). Demographics are presented in Table 1.

The study was approved by the Institution Human Investigation Committee of Old Dominion University, and respondents implied consent by completing the survey.

Instrumentation

We used the MBI to assess burnout in our participants. The MBI is one of the most commonly used tools to assess burnout in the human service professions,¹⁰ having been applied in athletic training,⁷ nursing^{11–13} general surgery education,¹⁴ and dental education.¹⁵ Since the development of the original MBI, 2 other versions have been developed: the MBI general survey for nonservice professionals and the MBI-Educators Survey (ES), which was used for this study.¹⁶ The MBI-ES can be completed in approximately 20 to 30 minutes. It assesses the 3 dimensions of burnout (*emotional exhaustion*, *depersonalization*, and *personal accomplishment*). *Emotional exhaustion* is a feeling of being overextended by work, *depersonalization* is described as a feeling of detachment or distance from individuals receiving service, and *personal accomplishment* is a feeling of competence and the belief that one has been successful at work. The MBI-ES contains 22 items and is divided into 3 subscales measuring each of the dimensions of burnout (*emotional exhaustion* = 9, *depersonalization* = 5, *personal accomplishment* = 8). Frequency, or how often each item is experienced, is assessed with a 7-point Likert scale with the extremes of 0 (indicating *never*) and 6 (indicating *every day*). The sum for frequency is calculated for each of the 3 categories. A range of high to low burnout scores for each subscale is presented in Table 2. Higher scores in emotional exhaustion and depersonalization indicate a higher level of burnout, and lower scores on personal accomplishment

Table 1. Demographics of Athletic Training Education Program Directors

Demographics	Program Directors (n = 249)	
	n	Percentage
Ethnicity^a		
Asian/Pacific Islander	2	0.8
Hispanic	4	1.6
White	234	94.0
Other	2	0.8
Sex		
Male	104	41.8
Female	145	58.2
Tenure status^a		
Tenured	79	31.7
Tenure track	79	31.7
Non-tenure track	84	33.7
Practicing clinician		
Division I	30	28.5 ^b
Division II	30	28.5 ^b
Division III	33	31.4 ^b
Other	12	11.4 ^b
Degree		
Master's	119	47.8
Terminal	123	49.4
Working toward terminal degree	49	19.7
National Collegiate Athletic Association Division^a		
I	95	38.2
II	56	22.5
III	69	27.7
Other	22	8.8
Academic rank^a		
Instructor/lecturer	42	16.9
Clinical specialist/faculty	14	5.6
Assistant professor	101	40.6
Associate professor	62	24.9
Full professor	23	9.2
Marital status^a		
Married	173	69.5
Separated and divorced	14	5.6
Widowed	1	0.4
Never married	36	14.5
Living with partner	16	6.4
Clinical hours per week		
1-5	32	29.9 ^c
5-10	18	16.8 ^c
10-15	14	13.1 ^c
15-20	18	16.8 ^c
>20	25	23.4 ^c

^a Some respondents chose not to answer all of the demographic questions.

^b Percentage of the 105 participants who responded that they were practicing clinicians.

^c Percentage of the 107 participants who provided the number of hours per week spent on clinical responsibilities. Each respondent checked the box reflecting the number of clinical hours per week.

indicate a higher level of burnout. As noted, we also collected demographic information about the ATEPDs, such as age, sex, ethnicity, workload, and personal characteristics.

The validity and reliability of the original MBI have been well established. Convergent validity was previously determined in numerous ways, one of which involved asking a coworker to assess a fellow worker's burnout.¹⁷ Another method correlated MBI scores with the presence

Table 2. Categorization for Burnout Scores on Maslach Burnout Inventory-Educators Survey

	High	Moderate	Low
Emotional exhaustion	≥27	17-26	0-16
Depersonalization	≥14	9-13	0-8
Personal accomplishment ^a	0-30	31-36	≥37

^a Personal accomplishment is scored in the opposite direction from emotional exhaustion and depersonalization.

of job characteristics believed to contribute to the experience of burnout. The final method used assessed the correlation between measures of various outcomes or personal reactions that were believed to be related to burnout. Some of these various outcomes were dissatisfaction with opportunities for personal growth and development on the job, the belief that one's work is not very meaningful or worthwhile, the desire to leave one's job, wanting to spend less time working with people, and impairment of one's relationships with people in general. Correlational data for convergent validity of the MBI were found for the 2 components of the instrument: frequency (emotional exhaustion, $r = -0.31$ to $r = 0.42$; depersonalization, $r = -0.47$ to $r = 0.56$; personal accomplishment, $r = 0.19$ to $r = 0.41$) and intensity (emotional exhaustion, $r = -0.26$ to $r = 0.41$; depersonalization, $r = -0.38$ to $r = 0.57$; personal accomplishment, $r = 0.18$ to $r = 0.29$).¹⁷ Subsequent validity values have been examined for the MBI-ES related to construct analysis and modeling. These values demonstrate that the instrument can validly measure the prevalence of burnout in educators in many countries.¹⁸⁻²⁰

The MBI also was established as an instrument to measure aspects of burnout by separating it from other psychological constructs, such as dissatisfaction with one's job. Discriminant validity was determined by comparison of participants' scores on the MBI and the Job Diagnostic Survey, which measures general job satisfaction. The correlations of these scores were not high enough to indicate that burnout and job dissatisfaction were the same (emotional exhaustion, $r = -0.23$, $P < .05$; depersonalization, $r = -0.22$, $P < .02$; personal accomplishment, $r = 0.17$, $P < .06$).¹⁷ Less than 6% of the variance is accounted for by any one of these correlations; therefore, the idea that burnout and job dissatisfaction are the same can be rejected.¹⁷

The internal consistency for reliability of the initial MBI was estimated with the Cronbach coefficient α , and coefficients were from samples that were not used in the item selections to eliminate inflation of reliability estimates.¹⁷ Emotional exhaustion had a frequency reliability of $r = 0.90$ (SE = 3.80) and an intensity of $r = 0.87$ (SE = 4.99). Depersonalization had a frequency reliability score of $r = 0.79$ (SE = 3.16) and an intensity of $r = 0.76$ (SE = 3.96). Lastly, personal accomplishment had a frequency reliability of $r = 0.71$ (SE = 3.73) and an intensity of $r = 0.73$ (SE = 3.99).

Test-retest reliability was assessed with a sample of 53 graduate students in social welfare and administrators in a health agency.¹⁷ The tests were separated by 2 to 4 weeks. All scores were significant beyond the .001 level.¹⁷ Emotional exhaustion had a frequency reliability score of $r = 0.82$ and an intensity of $r = 0.53$. Depersonalization had a frequency reliability score of $r = 0.60$ and an intensity

of $r = 0.69$. Personal accomplishment had a frequency reliability score of $r = 0.80$ and an intensity of $r = 0.68$.

The MBI-ES¹⁶ was created more than a decade after the original MBI-Form Ed²¹ to better assess burnout in educators. The only difference between the original MBI and MBI-ES is that the word *recipient* in the items was changed to *student* to clarify interpretation of the items. Validity and reliability related to educators have been established and mimic components found for the original MBI (reliability values were $r = 0.90$ for emotional exhaustion, $r = 0.76$ for depersonalization, and $r = 0.76$ for personal accomplishment).²²

Procedures

We mailed a packet to all 336 ATEPDs asking them to participate in our study. This packet contained a cover letter providing instructions and explaining the need and purpose of the study, the MBI-ES and demographic survey, a gift certificate entry form, and a postage-paid return envelope. We requested that the ATEPDs take the survey in the morning and in an environment with limited distractions. Furthermore, we requested that they complete the survey in one sitting. Surveys were coded to ensure that none of the participants submitted more than 1 completed survey and to enable us to look up the participants' institutions and identify their Carnegie classifications. Data collection occurred over a 2-month period during the middle of the fall semester. We sent 3 e-mail reminders (1 approximately every 2 weeks) asking the ATEPDs to complete and return the surveys and thanking participants who had already completed and returned the surveys. Surveys with all burnout questions answered were considered complete. As noted, 249 ATEPDs returned completed surveys.

Data Analysis

Descriptive statistics were used to determine means, SDs, and frequencies. Scores on each subscale for the MBI-ES were added twice on a calculator by the primary investigator (J.M.W.) to ensure accuracy. If a discrepancy occurred between the first 2 sums, the investigator added the scores a third time. Univariate, multivariate, and factorial analyses of variance were conducted to assess differences and associations between various demographic characteristics and subscale scores. To assess relationships between various demographic characteristics and subscale scores, we used Pearson product moment correlation coefficients and the Cohen d ²³ correlation. Data were analyzed using SPSS (version 15.0; SPSS Inc, Chicago, IL), with an α level set a priori at .05. Tukey honestly significant difference testing was used for post hoc comparisons.

RESULTS

Overall, ATEPDs reported moderate levels of burnout in emotional exhaustion (18.11 ± 9.89), low levels of burnout in depersonalization (6.05 ± 4.8), and low levels of burnout in personal accomplishment (38.29 ± 5.68). Women reported higher emotional exhaustion (20.67 ± 9.43) (moderate) scores than their male counterparts (16.47 ± 9.64) (low) ($F_{1,247} = 11.410$, $P = .001$). We found no difference between men and women for depersonalization

(Cohen $d = 0.03$, power = 8%) or personal accomplishment (Cohen $d = 0.06$, power = 16%).

Tenure status affected only the emotional exhaustion subscale ($F_{2,239} = 4.354$, $P = .014$), with tenure-track ATEPDs reporting higher scores (20.82 ± 9.36) (moderate) than tenured ATEPDs (16.53 ± 10.24) (low) ($P = .015$). We found no differences between tenure status and depersonalization (Cohen $d = 0.26$, power = 95%) or personal accomplishment (Cohen $d = 0.256$, power = 95%).

As the ages of ATEPDs increased, their emotional exhaustion ($r = -0.263$, $P < .001$) and depersonalization ($r = -0.171$, $P = .007$) scores decreased. We found no relationship between age and personal accomplishment ($P = .527$). It was also evident that when emotional exhaustion scores increased, depersonalization scores generally also increased ($r = 0.561$, $P = .001$). Additionally, personal accomplishment scores tended to decrease when emotional exhaustion ($r = -0.317$, $P = .001$) and depersonalization ($r = -0.320$, $P = .001$) scores increased.

Carnegie classification was not associated with emotional exhaustion ($F_{8,239} = 0.371$, $P = .935$), depersonalization ($F_{8,239} = 0.898$, $P = .519$), or personal accomplishment ($F_{8,239} = 0.974$, $P = .457$).

No differences were found in emotional exhaustion ($F_{1,247} = 3.718$, $P = .055$; Cohen $d = 0.25$; power = 97%), depersonalization ($F_{1,247} = 2.247$, $P = .135$; Cohen $d = 0.197$; power = 86%), or personal accomplishment ($F_{1,247} = 0.021$, $P = .885$; Cohen $d = 0.191$; power = 83%) scores for those who practiced clinically and those who did not. When examining only ATEPDs who had clinical responsibilities, we found that those who worked as clinicians 10 to 15 hours per week ($n = 14$; 3.50 ± 3.06) (low) reported less depersonalization than those who worked as clinicians 20 or more hours per week ($n = 25$; 7.63 ± 5.5) (low) ($F_{4,102} = 2.637$, $P = .038$).

As ATEPDs gained more years of experience, their levels of emotional exhaustion decreased ($r = -0.157$, $P = .013$) and their levels of personal accomplishment increased ($r = 0.130$, $P = .043$). On the other hand, gaining years of experience had no effect on their feelings of depersonalization ($r = -0.083$, $P = .195$). As ATEPDs remained in their jobs longer, they had less emotional exhaustion ($r = -0.162$, $P = .010$) and more personal accomplishment ($r = 0.197$, $P = .002$). However, the number of years at their current jobs had no effect on their feelings of depersonalization ($r = -0.124$, $P = .052$).

DISCUSSION

We hypothesized that women would experience more emotional exhaustion than men and that men would experience more depersonalization than women. We found that women did experience greater emotional exhaustion than men; however, we found no difference between men and women in terms of depersonalization scores. Maslach et al¹⁶ also found that women in various service professions (eg, teachers, postsecondary educators, social service workers, medical workers, and mental health workers) experienced higher emotional exhaustion scores. On the other hand, no sex differences were found with dental educators¹⁵ or ATs⁸ on any of the subscale scores. Contradictory to our findings, Capel⁶ found that male ATs experienced more depersonalization than female ATs.

In our study, a possibility for increased emotional exhaustion in women may be related, in part, to the amount of time spent engaging in household duties and/or attending to children.²⁴ We did not ask questions related to this component; therefore, we do not know if household duties played a part in the emotional exhaustion scores. Division-of-household-labor data have indicated that although women have increased their presence in the workforce, they are still performing most of the traditional feminine household duties, equating to 3 to 7 times more than men.²⁴ In the future, researchers should collect data concerning roles pertaining to duties and time commitments for shared domestic tasks, care of the elderly and children, and ages and sexes of children.

We also hypothesized that ATEPDs in tenure-track and non-tenure-track positions would experience higher emotional exhaustion and depersonalization scores and lower personal accomplishment scores compared with tenured ATEPDs. We found that ATEPDs in tenure-track positions experienced higher emotional exhaustion scores than tenured ATEPDs. However, no difference was found between non-tenure-track and tenure-track ATEPDs in terms of depersonalization or personal accomplishment scores. In contrast to our findings, Klausner and Green¹⁵ reported that the relationship between aspects of burnout and tenure track versus non-tenure track in dental educators was not significant. Similarly, Fong¹¹ found that quantitative job overload (when work is perceived as too much) variables, such as job demands, hours worked, and time pressure, were correlated with emotional exhaustion, whereas qualitative role overload (job inadequacy) variables, such as lack of a doctoral degree and lack of tenure, were not correlated with burnout. According to the author, the increased number of nursing faculty that were granted tenure may have changed their assessment of job adequacy, causing a lack of tenure to become a predictor of decreased personal accomplishment. Those who became tenured reported increased feelings of job adequacy, which increased their personal accomplishment scores.¹¹ Our study population (31.7% in tenure track) may be experiencing quantitative role overload because of the extra work required to obtain tenure. As more ATEPDs obtain tenure, the correlation between burnout and personal accomplishment scores may change because of an increase in their perceived success and job adequacy.

Of the ATEPDs in our study, 104 (43%) were clinically practicing athletic training in addition to serving as program directors, which may affect burnout. The CAATE standards require that ATEPDs have an amount of release time that is necessary to meet the administrative responsibilities and that the release time be consistent with similar positions at their institutions.² We are unsure if the ATEPDs are receiving adequate release time to administer the programs in addition to clinically practicing athletic training. We did not assess the distributed workload of the ATEPDs (eg, teaching load, clinical release time, and program administration release time) as a factor in burnout; therefore, we cannot determine if appropriate release time is allotted. However, some ATEPDs indicated in our demographic survey that they are practicing athletic training at sites other than the institution at which they are employed as an ATEPD.

We expected to find that ATEPDs with clinical responsibilities experienced higher *emotional exhaustion*

and *depersonalization* burnout scores and lower *personal accomplishment* burnout scores than those ATEPDs who did not have clinical responsibilities. We found no difference between ATEPDs who had clinical responsibilities and those who did not on any of the subscale scores. Interestingly, ATEPDs who practiced 20 or more hours per week had greater depersonalization scores than those who practiced only 10 to 15 hours per week. When assessing directors of general surgery programs, Anderson et al¹⁴ found that the care and treatment they provided to patients was not compromised by burnout. The general surgery program directors who experienced burnout from administrative duties were able to separate from those feelings when treating patients. Additionally, burnout among nurse educators has been inversely related to clinical practice according to the Matthews Burnout Scale.¹³ For example, as the nursing clinical practice hours increased, burnout scores decreased. Clinical practice may help to alleviate burnout because it is an area in which ATEPDs may have more control, can make choices, and can provide health care. However, if the clinical hours are long and exhausting and prevent ATEPDs from successfully performing other responsibilities, then burnout may occur. Clinical involvement of ATEPDs should be part of their workloads and should be limited to 10 to 15 hours per week, as our study indicates that this may be the optimal amount of time for them to practice clinically. The ATEPDs who worked 15 to 20 hours per week reported higher depersonalization scores (mean = 6.06) than those who worked 10 to 15 hours per week (mean = 3.50), whereas those who worked 20 or more hours reported the highest depersonalization scores (mean = 7.63). The ATEPDs who worked 1 to 5 hours per week and 5 to 10 hours per week also reported higher depersonalization scores (mean = 5.31 and mean = 4.35, respectively) than those who worked 10 to 15 hours per week. Working fewer than 10 to 15 hours may not give the ATEPD the full benefits of a practicing clinician, such as ownership of rehabilitation progression and being the contact individual for a specific team, and working more than 15 hours may lead to role overload and burnout.

When seeking a program director position in an athletic training education program, individuals should note whether clinical involvement is required and whether clinical involvement is part of the tenure and promotion process. If the ATEPD is required or wants to be an active clinician but clinical involvement is not considered for purposes of tenure, then they should negotiate responsibilities and release time according to CAATE standards to ensure success and prevent burnout. If clinical involvement is considered in the tenure-decision and promotion-decision processes, limiting clinical involvement to 10 to 15 hours per week along with a specific evaluation process for clinical practice should be considered.

We hypothesized that we would find a strong negative relationship between age and emotional exhaustion and depersonalization scores (ie, as age increased, emotional exhaustion and depersonalization scores decreased) and a strong positive correlation between age and personal accomplishment scores (ie, as age increased, personal accomplishment scores increased). We found a weak but negative relationship between age and emotional exhaustion only. As the ages of the ATEPDs increased, the emotional exhaustion scores decreased. Fong¹¹ found a

negative correlation between frequency and intensity of emotional exhaustion in nursing educators. As the nursing educators aged, both the frequency and intensity of emotional exhaustion scores decreased. Furthermore, Anderson et al¹⁴ found that general surgery program directors who scored high in burnout were 50 years of age or younger. Campbell et al⁸ found no relationship between age and burnout in ATs according to the ATBS.

Fong¹¹ suggested that older or more experienced nursing faculty have developed coping styles through life experience and by trial and error. In addition, the differences in burnout scores between different ages are likely due to experienced or older faculty solving their problems with increased maturity.^{11,14} Perhaps novice ATEPDs could be given more opportunities by the institution or educational conferences to learn and develop healthy coping strategies. Mentorship would allow novice ATEPDs to model themselves after more experienced or older ATEPDs. Those ATEPDs could share their coping strategies and provide information about how they manage and set priorities. Novice professionals may be susceptible to the negative consequences of job stress after leaving their entry-level educational environments (universities) if they do not have assistance in adjusting to the professional world.²⁵

We also hypothesized that we would find a positive relationship between Carnegie classification level and emotional exhaustion and depersonalization scores (as the Carnegie classification increased, the emotional exhaustion and depersonalization scores would also increase) and a negative relationship between Carnegie classification level and personal accomplishment scores (as the Carnegie classification increased, the personal accomplishment scores would decrease). We did not find a relationship between burnout scores and the different Carnegie classifications. This may be because ATEPDs at doctoral/research-intensive and doctoral/research-intensive institutions receive adequate release time to conduct research. Institutions with higher Carnegie classifications may have larger numbers of staff, graduate assistants, and teaching assistants to whom responsibilities can be distributed. In addition, institutions that do not require faculty to produce research but that do expect them to be involved in clinical practice may provide enough release time to practice clinically.

We hypothesized that ATEPDs with more experience would have lower emotional exhaustion and depersonalization scores and that as their experience increased, their personal accomplishment scores would also increase. Our hypothesis was partially supported; as experience increased, emotional exhaustion scores decreased and personal accomplishment scores increased. Fong¹¹ also found that as length of job experience increased, emotional exhaustion scores decreased; however, nursing educators working with students had a decreased sense of personal accomplishment. Dental educators experienced the highest intensity of emotional exhaustion and depersonalization at 10 years of teaching experience and the lowest personal accomplishment scores at 10 years.¹⁵ However, those burnout scores began to improve beyond 10 years of teaching experience. On the other hand, in their study of 89 nurse educators, Sarmiento et al²⁶ did not find a relationship between years of teaching experience and burnout. We found that the average years of experience for our ATEPDs is 7.79, which was a fairly low number;

however, many new programs have been added over the past 5 years and would contribute to this average. As these programs mature, assessing components of burnout again would be interesting.

Finally, we hypothesized that we would find a strong negative relationship between years at current job and emotional exhaustion and depersonalization scores and a strong positive relationship between years at current job and personal accomplishment scores. Our hypothesis was partially correct. We found a weak negative relationship between years at current job and emotional exhaustion scores and no relationship between years at current job and depersonalization scores. We also found a significant but weak positive relationship between years at current job and personal accomplishment scores. Our findings correspond with those of Anderson et al,¹⁴ who reported that participants scoring high in burnout had been in their current position fewer years.

Our findings for ATEPDs are similar to findings for both general surgery program directors and dental educators in all the burnout subscales; however, nursing educators (21.02 ± 10.89) (moderate) experienced greater emotional exhaustion than ATEPDs (18.11 ± 9.89) (moderate).

Limitations

We had a formidable return rate, but our investigation had some limitations. The MBI-ES scores may reflect the reaction to issues affecting the ATEPD at that moment rather than reflecting feelings on a broader scope. We asked the ATEPDs to take the survey in the morning and in an environment with limited distractions. Furthermore, we requested that they complete the survey in one sitting. By completing the survey in the morning, ATEPDs were more likely to be refreshed and not to have experienced an incident before completing the survey that might affect the burnout scores. We did not ask the ATEPDs to report what time they completed the surveys or whether the instruments were completed in one sitting. Therefore, we do not know whether they actually completed the surveys in one sitting during the morning.

Another limitation was that we could not control the environment in which the survey was completed. The ATEPDs were instructed to complete the survey in an environment in which they would not be disturbed, but we did not indicate exactly where the survey should be completed. Therefore, they ATEPDs may have completed the instruments in their offices or at home, where they could have been interrupted.

We did not inquire about the amount of household duties the ATEPDs were performing. The household duties may be divided evenly, or the women may be completing more household duties, contributing to higher burnout in this group. The effect of household duties and other responsibilities outside of the workplace on burnout scores needs to be assessed.

Finally, the time it took each ATEPD to complete the survey may have varied, and we did not instruct ATEPDs to report how long it took to complete them. The MBI takes approximately 10 to 15 minutes to complete.¹⁶ In addition, we included a demographic questionnaire. This may have taken some ATEPDs longer than others to

complete and also may have contributed to the ATEPDs not finishing the survey in one sitting.

CONCLUSIONS

In our study, we found that emotional exhaustion was influenced by tenure status, sex, age, years of ATEPD experience, and years at current job. Depersonalization was influenced by age and number of hours worked as a clinician. Burnout typically occurs in professions in which the professional begins work excited, is committed to helping others, and is very giving of himself or herself. Nursing educators, general surgery program directors, and dental educators have demonstrated various levels of burnout. Remaining in a position for a longer period of time often coincides with increased responsibilities and increased expectations, and these increases can lead to potentially longer hours in the workplace if the other responsibilities that the individual “owned” previously are not redistributed. Burnout is detrimental to the professional’s health and well-being and has a negative effect on coworkers. Therefore, institutions need to be proactive in identifying burnout and establishing programs to prevent it.

In the future, researchers should examine burnout in other athletic training educators, such as coordinators of clinical education or ATEPDs of entry-level master’s programs and postprofessional athletic training education programs. They should also examine the cause of greater emotional exhaustion in women and determine the effect of household duties on burnout. Attrition of ATEPDs and of athletic training students caused by burnout should also be examined. This will lead to effective programs to prevent and treat burnout.

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