National Collegiate Athletic Association Division and Primary Job Title of Athletic Trainers and Their Job Satisfaction or Intention to Leave Athletic Training

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Context: Membership in the National Athletic Trainers' Association (NATA) has declined in recent years, generating much debate about professional commitment.

Objective: To compare the contributing factors of job satisfaction and intention to leave athletic training of certified athletic trainers (ATs) employed in National Collegiate Athletic Association (NCAA) institutions.

Design: Cross-sectional study.

Setting: A link to a Web-based questionnaire containing the Spector Job Satisfaction Survey (JSS) and an original Intention to Leave Survey (ITLS) was distributed by e-mail to 1003 certified members of the National Athletic Trainers' Association.

Patients or Other Participants: A total of 191 certified members of the NATA employed in a college or university setting in a primarily clinical capacity; representing all NCAA divisions; and having the job title of head athletic trainer, associate/assistant athletic trainer, or graduate assistant/intern athletic trainer.

Main Outcome Measure(s): We used separate 3×3 factorial analyses of variance to compare the mean scores of each

JSS subscale and of the ITLS with NCAA division and job title. A stepwise multiple regression was used to determine the strength of the relationships between the JSS subscales and the ITLS.

Results: We found differences for job title in the subscales of Fringe Benefits ($F_{2,182} = 7.82$, P = .001) and Operating Conditions ($F_{2,182} = 12.01$, P < .001). The JSS subscale Nature of Work was the greatest indicator of intention to leave ($\beta = -0.45$).

Conclusions: We found a strong negative correlation between various facets of job satisfaction and intention to leave athletic training. The NCAA division seemed to have no effect on an individual's job satisfaction or intention to leave the profession. In addition, only Fringe Benefits and Operating Conditions seemed to be affected by job title. The ATs had similar levels of job satisfaction regardless of NCAA division, and their job titles were not a major factor in job satisfaction.

Key Words: collegiate athletic trainers, membership retention, professional commitment

Key Points

- National Collegiate Athletic Association division and job title had a minimal effect on the levels of job satisfaction and intention to leave athletic training.
- The 8 subscales of the Job Satisfaction Survey were negatively correlated with total intention to leave.
- Of the Job Satisfaction Survey subscales, Nature of Work was the best predictor of total intention to leave.

embership in the National Athletic Trainers' Association (NATA) has declined in recent years, generating much debate about the professional commitment of athletic trainers. Although it increased steadily starting in the mid-1970s and continuing to 2005, membership declined for the first time in history in 2006. Data from the NATA have indicated an approximate attrition of 19990 members between 2001 and 2006. Examination of membership categories indicated a comparatively low (2.1%) increase in total certified membership compared with a 23% increase in total student membership from 2007 to 2008. This suggests new membership from students is driving membership numbers.

Clearly, NATA membership numbers are declining, but whether individuals simply are not renewing their memberships in the organization or if they actually are abandoning the athletic training profession is unclear. Therefore, speculating whether a decline in NATA membership also could indicate a decline

in job satisfaction and ultimately affect a person's decision to leave the profession entirely is reasonable. Although attrition in athletic training was examined in the early 1990s,³ the issue has resurfaced as the constructs of *job satisfaction* and *intention to leave* have gained attention in the athletic training literature.⁴⁻⁶

Whereas many factors might influence a person's longevity in a career, job satisfaction has been seen as the main predictor of intention to leave a profession or organization. A person with greater job satisfaction is less likely to leave a profession, whereas a person with lower job satisfaction is more likely to leave. Job satisfaction has been defined as the degree to which people like their jobs and consists of an affective component that comprises an individual's feeling of satisfaction regarding his or her job and a perceptual component that evaluates whether one's job is meeting one's needs. Issues surrounding job satisfaction exist in every profession, and the nature of each profession might greatly influence the degree of satisfaction.

Job satisfaction within health professions has been a major concern since studies of nurses in the 1940s. ¹¹ Job satisfaction has been studied since then in various health fields, including medicine, ¹² nursing, ^{7,13–17} occupational therapy, ^{18–21} physiotherapy, ²² and physical therapy. ^{23,24} Research of job satisfaction in athletic training did not begin until the 1980s with a study of burnout syndrome²⁵ and has since focused mainly on athletic trainers (ATs) in the collegiate or university setting. ^{26–29} Through examination of job satisfaction in the various disciplines, these researchers have determined that certain factors greatly influence overall job satisfaction.

Many factors, including pay,¹⁵ job stress,³⁰ work–family conflict,³¹ and organizational constraints,³² might positively and negatively affect an individual's overall job satisfaction. Increased pay and increased professional recognition have been found to have direct positive relationships with increased job satisfaction.^{33,34} In contrast, increased job stress and work–family conflict have direct negative effects on job satisfaction.³⁵

The potential consequences of job satisfaction have been well established. 8,15,36 The worst potential consequences of low job satisfaction are the intention to leave and ultimate departure from a profession. Research in nursing has illustrated the relationship between lower job satisfaction and increased intention to leave a profession. To date, few authors have examined job satisfaction and intention to leave the athletic training profession.

Approximately 20% of ATs are employed in the college or university setting, which is the second highest employment setting next to employment in clinics (23%). Therefore, understanding job satisfaction in this setting is important. The various divisions of the National Collegiate Athletic Association (NCAA) provide different work environments for ATs that might affect their degrees of job satisfaction. By definition, major differences exist among NCAA divisions relative to the number of athletic teams sponsored, financial aid for student-athletes, and the size of athletic venues.³⁷ Anecdotally, this often translates into larger and more well-equipped athletic training facilities in the Division I setting. One might expect that working in a job setting that has abundant resources would lead to greater job satisfaction. However, this might be juxtaposed with ATs in the Division I setting feeling indirect pressure to contribute to the success of the athletic department. In contrast, although Division II or III settings might not have exceptional athletic training facilities, the pressure to succeed athletically also is lower at these levels. Most studies³⁸⁻⁴¹ in which researchers have examined the differences in job satisfaction among NCAA divisions have centered on coaches and have produced conflicting results. Although researchers^{4,26–28} have discussed job satisfaction of ATs in colleges and universities, to our knowledge, no one has described differences in job satisfaction among ATs in different NCAA divisions.

Therefore, the purpose of our study was to compare the contributing factors of job satisfaction and intention to leave athletic training of ATs employed in NCAA institutions. The following research questions and associated hypotheses guided our investigation. (1) Does a difference exist in the subscales of job satisfaction of ATs based on NCAA division or primary job title? We hypothesized that ATs in Division I would have higher job satisfaction in all subscales than ATs in other divisions and that graduate assistant/intern athletic trainers (GAs) would have the lowest. (2) Does a difference exist in intention to leave the profession of athletic training based on NCAA division or primary job title? We hypothesized that ATs in Division II and

GAs would have the greatest intention to leave the profession of athletic training. (3) Which of the job-satisfaction subscales was associated with intention to leave? We hypothesized that the items on all the subscales would influence intention to leave. (4) Which of the job-satisfaction subscales predict intention to leave the profession? We hypothesized that the subscales of Promotion and Coworkers would be the best predictors of an AT's intention to leave the profession of athletic training.

METHODS

Participants

Initially, the entire available population of NATA District 3 (n = 463) was solicited to participate in this study. Eligible participants met the following inclusion criteria: AT, employed in an NCAA college or university, and member of the NATA. The initial decision to solicit only NATA District 3 was based on convenience and our desire to understand the job satisfaction of ATs in the mid-Atlantic region. Because only 463 individuals in District 3 met the inclusion criteria, 540 additional individuals were selected randomly from the remaining 9 districts in an effort to increase the sample pool, resulting in a total of 1003 individuals selected for participation.

Of these 1003 individuals, 27 contacted us and indicated they were not eligible for the study. A total of 286 responses were collected from the 976 eligible units for a response rate of 29%. However, after further exclusion criteria were applied based on primary job title, failure to complete all sections of the Web-based survey instrument, and lack of clinical employment, 191 individuals met all inclusion criteria and participated in our study. The participants represented all 10 NATA districts and all 3 NCAA divisions and included head athletic trainers (HATs), associate/assistant athletic trainers (AATs), and GAs (Table 1). Completion of the survey instrument served as passive informed consent for all participants. The institutional review board approved the study.

Table 1. Participant Demographics (N = 191)

Category	n	Cohort, %
National Collegiate Athletic Association division		
I	106	55.5
II	37	19.4
III	48	25.1
Primary job title		
Head athletic trainer	63	33.0
Associate/assistant athletic trainer	103	53.9
Graduate assistant/intern athletic trainer	25	13.1
National Athletic Trainers' Association district ^a		
1	6	3.1
2	6	3.1
3	96	50.3
4	3	1.6
5	6	3.1
6	7	3.7
7	6	3.1
8	4	2.1
9	5	2.6
10	8	4.2

^aAn error in the instrument caused district demographic information not to be collected when the survey was first distributed. When the error was remedied, the remaining respondents (n = 147) answered the demographic question.

Instrumentation

We used a Web-based survey instrument housed on Survey Monkey (http://www.surveymonkey.com). The survey had 3 sections designed to collect demographic information and information regarding job satisfaction and intention to leave the athletic training profession. The first section of the survey consisted of various demographics; for our purposes, however, the main demographics of concern were NCAA division (I, II, III) and primary job title (HAT, AAT, GA).

The second section of the survey was a modified version of the Spector Job Satisfaction Survey (JSS), consisting of 36 items. The JSS originally was designed to produce 10 scores (9 subscale scores and 1 total score). To ensure the 9 subscales were accurate, a principal components analysis (PCA) was calculated for all 36 items. The PCA of the JSS revealed only 8 separate subscales of the JSS. Of the original 9 subscales, 7 were left unchanged; however, the subscales of Pay and Contingent Rewards were combined into 1 subscale of Pay & Rewards based on the PCA. In addition, the original JSS instrument included 4 items per subscale; however, our modified subscales included an uneven number of items per subscale. For instance, the subscales of Supervision and Pay & Rewards each had 7 items, whereas the subscale of Operating Conditions had only 2 items. The resultant 8 subscales that we analyzed are described in Table 2.

To score the JSS, we used a 6-point Likert scale with the anchors of 1 (disagree very much) and 6 (agree very much). Some responses were scored in a positive and some in a negative direction. Agreement with a positively worded item indicated job satisfaction (eg, "I feel I am being paid a fair amount for the work I do"). Agreement with a negatively worded item indicated job dissatisfaction (eg, "There is really too little chance for promotion on my job"). Negatively worded items were reverse scored during data entry.

The third section of the survey was the self-developed Intention to Leave Survey (ITLS), which comprised 7 questions to determine a respondent's intention to leave the profession of athletic training. The responses were presented in a 4-point Likert scale. Three items were intended to determine how often a participant had considered leaving the profession of athletic training, with possible responses of 1 (never), 2 (a little), 3 (a lot), or 4 (constantly). One item was intended to determine how actively an individual had pursued leaving the profession of athletic training, with possible responses of 1 (I have done nothing), 2 (I have made inquiries into jobs outside of athletic training), 3 (I have applied to jobs outside of athletic training), and 4 (I have accepted jobs outside of athletic training). The remaining items were intended to judge the probability of staying in the profession of athletic training, with possible responses of 1 (excellent, 75%–100% probability), 2 (good, 50%–74%), 3 (*fair*, 25%–49%), and 4 (*poor*, 0%–24%). For 5 items of the ITLS, a value of 1 corresponded with less intention to leave the profession of athletic training, and a 4 corresponded with more intention to leave. The remaining 2 items were reverse scored to remain consistent with a higher value equaling a greater intention to leave the profession. Reliability was assessed using the Cronbach α , and the overall reliability for all 7 items of the ITLS was very good (0.86).

Pilot testing was conducted to test the feasibility of using a Web-based survey protocol to calculate the interitem reliabilities of both the JSS and ITLS. Fifteen ATs were solicited by e-mail based on convenience and included those employed in NCAA Divisions I, II, and III outside of NATA District 3. They reviewed the instruments for overall clarity, purpose, and relevance and made revisions accordingly. In addition, 2 ATs with extensive research experience and a statistician reviewed the instrument to establish face and content validity.

An item analysis of the JSS pilot data was calculated using the Cronbach coefficient α . For pilot testing, no PCA was conducted, and reliability was based on the original 9 subscales. None of the subscales had a correlation of 0.80 or greater with another, ensuring that each subscale was measuring a separate construct. The Cronbach coefficient α for the 9 subscales ranged from 0.63 to 0.93, ensuring that each of the subscales demonstrated acceptable internal consistency. Cronbach coefficient α pilot data for the ITLS demonstrated internal consistency for all items of 0.85.

Procedures

We contacted the NATA to request a membership list rental with the criteria of "certified" and "certified student" members working in the "university & college" setting. The NATA contacted 1003 ATs via an initial e-mail solicitation, asking for their participation. The e-mail included the purpose of the study, a brief description of the survey, and a description of how consent was obtained. Participants were directed to a Web-site URL, where they were invited to complete an online survey.

Two weeks after the initial solicitation, a second e-mail solicitation was sent to all potential participants. Due to the solicitation method used by the NATA, a disclaimer was added to the second e-mail requesting that those who had already completed the survey ignore the follow-up solicitation. The investigation consisted of 3 weeks of data collection with 2 solicitations.

Statistical Analysis

All scores for the JSS and ITLS were collected automatically by Survey Monkey and were downloaded into an Excel 2003 (version 11; Microsoft Corporation, Redmond, WA) spreadsheet. Separate scores for each subscale of the JSS and

Table 2. Description and Reliability Analysis for the Subscales of the Job Satisfaction Survey

Subscale	Description: Satisfaction With	Cronbach	No. of Items
Supervision	Supervisor	0.89	7
Pay & Rewards	Pay, appreciation, recognition, and rewards	0.87	7
Fringe Benefits	Extra benefits of monetary or nonmonetary value	0.83	4
Promotion	Opportunity for advancement or promotion	0.75	4
Nature of Work	The activities involved in the job	0.76	4
Coworkers	People with whom one works	0.78	3
Operating Conditions	Policies, procedures, and conditions of the workplace	0.69	2
Communication	Communication with personnel within the workplace	0.75	3

a composite score for the sum of the responses on the ITLS were calculated for each respondent. Descriptive statistics of central tendency and frequency distributions were collected for demographic information. Separate 3 (Division I, II, III) × 3 (HAT, AAT, GA) factorial analyses of variance (ANOVAs) were used to examine whether NCAA division or primary job title affected any of the subscales of job satisfaction or the total intention-to-leave score. The α level was set a priori at .05. A multiple regression was used to determine which subscales of job satisfaction predicted the total intention-to-leave score. An entry level of P = .49 and a removal level of P = .51 were preset to determine which subscale provided the best model. When a significant F test was identified, a post hoc Tukey honestly significant difference (HSD) analysis was conducted to determine group differences. We analyzed the data using SPSS (version 15.0; SPSS Inc, Chicago, IL).

RESULTS

With our first research question, we examined the relationship of the JSS subscales and primary job title and NCAA division. Separate 3×3 factorial ANOVAs were completed for each of the 8 JSS subscales with fixed factors of NCAA division and primary job title. We found no differences in any job-satisfaction subscale among NCAA divisions. We found differences in primary job title with the subscales of Fringe Benefits ($F_{2,182} = 7.82$, P = .001) and Operating Conditions ($F_{2,182} = 12.01$, P < .001). The post hoc Tukey HSD analysis for the Fringe Benefits subscale revealed lower mean scores for GAs than for HATs and AATs. In addition, the post hoc analysis revealed higher mean job satisfaction for both GAs and AATs than for HATs in the Operating Conditions subscale (Table 3).

Through our second research question, we examined intention to leave across NCAA division and primary job title. Factorial analyses of variance showed no difference in either total intention to leave based on NCAA division ($F_{2,191}=1.27$, P=.28) or primary job title ($F_{2,191}=1.33$, P=.27). We also found no interaction between NCAA division and primary job title ($F_{4,191}=2.05$, P=.09).

With our third research question, we wanted to determine the relationship between the various subscales of job satisfaction and the total intention-to-leave score. A stepwise multiple regression analysis showed all 8 subscales of the JSS demonstrated negative correlations with total intention to leave (Table 4).

Through our final research question, we examined which subscales of the JSS were the main predictors of total intention to leave. Because all zero-order correlations between the JSS subscale scores and the ITLS score were significant, stepwise linear regression analysis was used to determine the aggregate relationship between the 8 subscales of the JSS and the total intention-to-leave score. At the preset entry level of P=.49 and removal level of P=.51, the JSS subscales of Nature of Work, Pay & Rewards, and Promotion provided the best model (Table 4). Examination of R^2 change revealed a significant F value change for this model and suggested that roughly 30% of the variance was explained by the subscales. Examination of standardized coefficient β weights suggested Nature of Work was the best predicting subscale of total intention to leave ($\beta = -0.45$).

DISCUSSION

The declining membership of the NATA and the potential loss of experienced clinicians in the profession has become an issue at the forefront of athletic training. Although many factors might be associated with these recent trends, we speculated that the interactions of poor job satisfaction and high intentions to leave the profession of athletic training are major contributors. It is possible to speculate from the statistics that the younger professionals, such as students, are driving membership numbers. Further examination showed a similar trend in the subcategories of "certified student" and "certified," with increases of 78.6% and only 12.6%, respectively.

Our primary findings indicated NCAA division and primary job title minimally affected the levels of job satisfaction or intention to leave the profession for ATs. In addition, although all the subscales of job satisfaction had a negative correlation with intention to leave, the subscales of Pay & Rewards, Nature of Work, and Promotion were particularly good predictors, accounting for roughly 30% of the variance.

Research^{5,26-29} on job satisfaction in athletic training has been focused mainly on ATs in the collegiatee or university setting. No investigators have examined how NCAA division affects job satisfaction in ATs; however, some authors⁴⁰ have examined division and satisfaction in coaching and have demonstrated higher job-satisfaction scores in Division I coaches than in Division III coaches. In terms of athletic training, researchers have shown greater levels of organizational commitment in Division

Table 3. Post Hoc Testing of the Job Satisfaction Survey and Primary Job Title

	Job Title			
Subscale	(A) (B)		Mean Difference (A-B)	P Value
Fringe Benefits	Head athletic trainer	Assistant athletic trainer	-0.09	.99
	Head athletic trainer	Graduate assistant/intern athletic trainer	4.63ª	<.001
	Assistant athletic trainer	Head athletic trainer	0.09	.99
	Assistant athletic trainer	Graduate assistant/intern athletic trainer	4.73 ^a	<.001
	Graduate assistant/intern athletic trainer	Head athletic trainer	-4.63ª	<.001
	Graduate assistant/intern athletic trainer	Assistant athletic trainer	-4.73ª	<.001
Operating Conditions	Head athletic trainer	Assistant athletic trainer	-1.89ª	<.001
	Head athletic trainer	Graduate assistant/intern athletic trainer	-1.37 ^a	.03
	Assistant athletic trainer	Head athletic trainer	1.89ª	<.001
	Assistant athletic trainer	Graduate assistant/intern athletic trainer	0.52	.55
	Graduate assistant/intern athletic trainer	Head athletic trainer	1.37ª	.03
	Graduate assistant/intern athletic trainer	Assistant athletic trainer	-0.52	.55

^a Indicates difference ($P \le .05$).

Table 4. Correlation of Spector Job Satisfaction Survey Subscales and Total Intention to Leave

r	<i>P</i> Value
-0.23	.001
-0.43a	<.001
-0.23	.002
-0.41a	<.001
-0.45a	<.001
-0.25	<.001
-0.21	.003
-0.24	.001
	-0.43° -0.23 -0.41° -0.45° -0.25 -0.21

^a Indicates greatest predictors of intention to leave.

I than in Division III HATs⁴² and a direct positive relationship between organizational commitment and job satisfaction. ⁴³ Therefore, if Division I ATs have a greater commitment, they also should have greater job satisfaction. Our results did not support this, and we only found differences in job satisfaction based on NCAA division and the Nature of Work subscale.

A potential reason for the lack of differences in the other subscales might have been that the responsibilities of being an AT were similar regardless of the NCAA division in which participants were employed. In addition, investigators⁴⁴ have shown that interesting work environments and skill variety lead to increased job satisfaction. Each NCAA division can provide a unique work environment that is interesting and stimulating enough and includes a variety of skills for an AT. This might suggest that as long as the job is interesting to the AT, the division in which he or she is working is irrelevant.

When examining job satisfaction as it relates to primary job title, we hypothesized that GAs would show the lowest satisfaction scores. Our results surprisingly indicated that GAs did not have lower job satisfaction than full-time ATs overall and, in particular, in the subscale of Pay & Rewards. Researchers have shown that GAs experience more economic difficulties than full-time ATs²⁶ and that financial concerns are a major factor in job satisfaction. One possible reason for this could be that GAs have determined fair pay is based on the job title. For example, GAs would not expect to be paid \$30000 for a part-time position; therefore, they might be satisfied with a \$10000 stipend because they believe it is reasonable for an assistant-ship. This could have led GAs to answer the survey according to a preconceived notion of pay fairness.

Although our original research question and hypothesis focused on which job title had the lowest level of job satisfaction, we also assumed HATs would have the highest level of job satisfaction in each subscale based on the respect and authority offered by the position.^{3,29} However, our results indicated differences only in the subscale of Operating Conditions, which revealed that HATs had the lowest satisfaction score in this area. This is possibly due to the typical HATs being most heavily involved in addressing policies, procedures, and work conditions of the facility and, therefore, likely having the highest levels of stress.

Regarding an AT's intention to leave the profession, our results indicated the subscales of Nature of Work, Pay & Rewards, and Promotion were the best predictors. Such topics, including increased pay and rewards^{45,46} and flexible scheduling⁴⁷ have been discussed in the athletic training literature as ways to address intention to leave the profession. Our results are consistent with the model of Irvine and Evans¹⁵ in which economics

and structure of the work environment influenced nurses' intention to leave. This suggests similar factors affect various health professions, and understanding the effect of these factors might provide solutions for athletic training.

We did not find differences in intention to leave the athletic training profession based on NCAA division. We originally speculated that ATs employed in the Division II setting would have a greater intention to leave the profession than ATs employed in Divisions I or III. Our results did not support this notion; visual inspection actually associated Division II ATs with the least intention to leave.

When examining GAs, researchers recently have suggested that the new generation of health care professionals is more willing than ever to leave a job within the first few years if it does not meet their immediate goals⁴⁸ and that younger employees, especially those with less than 10 years of experience, have greater intentions to leave.⁴⁹ Our results were contrary to this literature because GAs did not show an increased intention to leave; they seemed more consistent with the results of researchers who have suggested the typical GA is eager to start his or her career and is willing to experience some setbacks in the first few years.²⁶

The results of the JSS and ITLS can only be generalized to ATs working in the collegiate or university setting. Although we studied a national sample, the low response rate from 9 of the 10 NATA districts makes it difficult to generalize the results to these districts. And even though the 50% response rate of respondents in NATA District 3 makes the results extremely applicable to this district, we believe the results would have been similar in all NATA districts. In addition, the reliability analysis seemed adequate for all JSS subscales and the ITLS, with the exception of Operating Conditions.

Another primary limitation was response bias. The design of our survey did not allow us to track nonrespondents. Therefore, we could not determine whether the demographics, JSS scores, and ITLS scores of the respondents were similar to the nonrespondents. In addition, no effort was made to control for the number of responses per institution, especially in NATA District 3, where all eligible individuals were solicited. This allowed for institutional or organizational characteristics to possibly overshadow the job satisfaction and intention to leave at the occupational or professional level. This factor might be a particular concern with the ITLS because respondents might have based their answers more on their reactions to the institution than to the profession. Finally, the JSS subscale of Operating Conditions showed HATs had lower scores than the AATs and GAs; however, it consisted of only 2 items. A better-defined construct with more items might be needed in future research to determine how meaningful these results actually are.

CONCLUSIONS

We explored job satisfaction and intention to leave the profession of athletic training in clinically oriented ATs employed in various NCAA institutions. Our findings indicated NCAA division and job title minimally affected the levels of job satisfaction and intention to leave the athletic training profession. Although some individuals might consider NCAA Division I to be the highest level of athletic training in collegiate athletics, our data did not suggest ATs in this division have greater job satisfaction than ATs in other divisions. In addition, GAs did not seem to have less job satisfaction than full-time ATs, such as HATs or AATs. On the contrary, our results suggested handling

policies, procedures, and work conditions by HATs led to lower job satisfaction in the area of Operating Conditions.

Our results indicated job satisfaction was not a simple construct but instead was multidimensional. Although no differences were found among job titles and NCAA divisions, the results did suggest job satisfaction had some variation based on these demographics. In addition, the hypothesis that certain levels of competition or job titles provided more satisfying work environments did not seem to be accurate.

Possible solutions to decreasing intention to leave should address the subscales that most greatly predict it. Increasing pay and rewards is a current topic in athletic training and has been receiving more support from various institutions. ^{45,46} Being compensated for working 60-hour weeks might provide enough job satisfaction to keep an AT in the profession longer. In addition, programs such as flexible scheduling are potential ways to positively reward ATs for their hard work and to retain them in the field. ⁴⁷

Methods to increase the professional recognition of being an AT also can help decrease overall intention to leave. Continuing to promote the profession of athletic training in a positive manner should be a major public relations focus, both to other allied health fields and to the general public. The continued efforts of the NATA to legislate for ATs on issues such as the right to fair practice provide professional credibility and respect not only to the AT as an individual but to the profession as a whole. Athletic trainers should support continued efforts at both the national and grassroots levels, regardless of their work settings or job titles.

In the future, researchers should continue to examine job-satisfaction differences not only in NCAA divisions but also in the many other work settings in which ATs are employed. Our results suggested job satisfaction appears not to be affected as long as a work environment is stimulating and interesting. Further study is needed to determine which aspects of each NCAA division make it interesting and stimulating for ATs and how to incorporate such characteristics at all NCAA levels.

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REFERENCES

- National Athletic Trainers' Association. Membership statistics. http:// www.nata.org/membership/stats.htm. Accessed October 10, 2006.
- National Athletic Trainers' Association Board of Directors. Summary of minutes. http://cf.nata.org/members1/documents/BOD_minutes/0607.pdf. Accessed November 11, 2010.
- Capel SA. Attrition of athletic trainers. Athl Train J Natl Athl Train Assoc. 1990;25(1):34–39.
- Mazerolle SM, Bruening JE, Casa DJ, Burton LJ. Work-family conflict, part II: job and life satisfaction in National Collegiate Athletic Association Division I-A certified athletic trainers. *J Athl Train*. 2008;43(5):513–522.
- Brumels K, Beach A. Professional role complexity and job satisfaction of collegiate certified athletic trainers. J Athl Train. 2008;43(4):373–378.
- Mazerolle SM, Bruening JE, Casa DJ. Work-family conflict, part I: antecedents of work-family conflict in National Collegiate Athletic Association Division I-A certified athletic trainers. J Athl Train. 2008;43(5):505–512.
- Coomber B, Barriball KL. Impact of job satisfaction components on intent to leave and turnover for hospital based nurses: a review of the research literature. Int J Nurs Studies. 2007;44(2):297–314.

- 8. Mobley WH, Horner SO, Hollingsworth AT. An evaluation of precursors of hospital employee turnover. *J Appl Psychol.* 1978;63(4):408–414.
- 9. Spector P. Job Satisfaction: Application, Assessment, Causes, and Consequences. Thousand Oaks, CA: Sage; 1997:5-12.
- Cranny C, Smith P, Stone E. Job Satisfaction: How People Feel About Their Jobs and How It Affects Their Performance. New York, NY: Lexington; 1992.
- 11. Nahm H. Job satisfaction in nursing. Am J Nurs. 1940;40(12):1389–1392.
- 12. Robinson GE. Stresses on women physicians: consequences and coping techniques. *Depress Anxiety*, 2003;17(3):180–189.
- Gardulf A, Söderström IL, Orton ML, Eriksson LE, Arnetz B, Nordström G. Why do nurses at a university hospital want to quit their jobs? J Nurs Manag. 2005;13(4):329–337.
- 14. Lambert VA, Lambert CE. Literature review of role stress/strain on nurses: an international perspective. *Nurs Health Sci.* 2001;3(3):161–172.
- Irvine DM, Evans MG. Job satisfaction and turnover among nurses: integrating research findings across studies. *Nurs Res.* 1995;44(4):246–253.
- Fochsen G, Sjögren K, Josephson M, Lagerström M. Factors contributing to the decision to leave nursing care: a study among Swedish nursing personnel. *J Nurs Manag.* 2005;13(4):338–344.
- 17. Lussier KG. Taming burnout's flame. Nurs Manag. 2006;37(4):14.
- 18. Burnett-Beaulieu S. Occupational therapy profession dropouts: escape from the grief process. *Occup Ther Mental Health*. 1982;2(2):45–55.
- Salvatori P, Williams R, Polatajko H, MacKinnon J. The manpower shortage in occupational therapy: implications for Ontario. Can J Occup Ther. 1992;59(1):40–51.
- Bailey DM. Reasons for attrition from occupational therapy. Am J Occup Ther. 1990;44(1):23–29.
- 21. Bailey DM. Ways to retain or reactivate occupational therapists. *Am J Occup Ther.* 1990;44(1):31–37.
- 22. Wolpert R, Yoshida K. Attrition survey of physiotherapists in Ontario. *Physiother Can.* 1992;44(2):17–24.
- 23. Ries E. Mirror images: how PTs view their profession. *PT Magazine*. 2004;12(1):38–44.
- Harkson DG, Unterreiner AS, Shepard KF. Factors related to job turnover in physical therapy. *Phys Ther.* 1982;62(10):1465–1470.
- 25. Gieck J, Brown RS, Shank RH. The burnout syndrome among athletic trainers. *Athl Train J Natl Athl Train Assoc*. 1982;17(1):36–40.
- Barrett JJ, Gillentine A, Lamberth J, Daughtrey CL. Job satisfaction of NATABOC certified athletic trainers at Division One National Collegiate Athletic Association institutions in the Southeastern Conference. *Int Sports* J. 2002;6(2):1–13.
- Pitney WA, Ilsley P, Rintala J. The professional socialization of certified athletic trainers in the National Collegiate Athletic Association Division I context. J Athl Train. 2002;37(1):63–70.
- 28. Pitney WA. Organizational influences and quality-of-life issues during the professional socialization of certified athletic trainers working in the National Collegiate Athletic Association Division I setting. *J Athl Train*. 2006;41(2):189–195.
- Herrera R, Lim JY. Job satisfaction among athletic trainers in NCAA Division I-AA institutions. Sport J. 2003;6(1). http://www.thesportjournal.org/article/job-satisfaction-among-athletic-trainers-ncaa-division-iaa-institutions. Accessed October 13, 2016.
- Cooper CL, Cartwright S. Healthy mind; healthy organization: a proactive approach to occupational stress. Hum Relat. 1994;47(4):455–471.
- Lewis S, Cooper CL. Stress in two-earner couples and stage in the lifecycle. J Occup Psychol. 1987;60:289–303.
- 32. Laff M. The myth of multitasking. Train Dev. 2007;61(3):20.
- 33. Mensch JM, Wham G. It's a quality-of-life issue. *Athl Ther Today*. 2005;10(1):34–35.
- 34. Frayne T. The ultimate goal: the almighty buck. *Maclean's*. 1992;105 (6):65
- 35. Mazerolle S, Bruening JE. Sources of work-family conflict among certified athletic trainers, part 1. *Athl Ther Today*. 2006;11(5):33–35.
- Steel RP, Ovalle NK. A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. J Appl Psychol. 1984;69(4):673–686.
- 37. National Collegiate Athletic Association. What's the difference between

- Divisions I, II and III? http://www.ncaa.org/wps/portal/ncaahome?WCM_GLOBAL_CONTEXT=/ncaa/ncaa/about+the+ncaa/membership/div_criteria.html. Accessed December 10, 2009.
- Chelladurai P, Ogasawara E. Satisfaction and commitment of American and Japanese collegiate coaches. J Sports Manag. 2003;17(1):62–73.
- 39. Yusof A. The Relationship Between Transformational Leadership Behaviors of Athletic Directors and Leadership Substitutes Variables With the Job Satisfaction of Coaches at NCAA Division I and III Institutions [dissertation]. Storrs: The University of Connecticut; 1999.
- 40. Jordan J, Mullane S, Gillentine A. Job satisfaction in sport organizations: an examination of NCAA Division I and III basketball coaches. Paper presented at: 2004 AAHPERD National Convention and Exposition; March 27–April 4, 2004; New Orleans, LA.
- 41. Pastore DL. Job satisfaction and female college coaches. *Phys Educ*. 1993;50(4):216–221.
- 42. Winterstein AP. Organizational commitment among intercollegiate

- head athletic trainers: examining our work environment. *J Athl Train*. 1998;33(1):54-61.
- 43. Blau G. Testing for a four-dimensional structure of occupational commitment. *J Occup Organ Psychol.* 2003;76(4):469–488.
- 44. Hackman JR, Oldham GR. Motivation through the design of work: test of a theory. Organ Behav Hum Perform. 1976;16(2):250-279.
- National Athletic Trainers' Association. New salary survey shows increased pay in most settings. NATA News. June 2005:22–23.
- 46. New salary survey: increased income for ATCs. Athl Ther Today. 2005;10(4):67.
- 47. Sabiston KB, Summers S. Life balancing opportunities: pregnancy leave and flexible schedules. *NATA News*. July 2004;32–34.
- 48. Aiken LH, Clarke SP, Sloane DM, et al. Nurses' reports on hospital care in five countries. *Health Aff (Millwood)*. 2001;20(3):43–53.
- Hellman CM. Job satisfaction and intent to leave. J Social Psychol. 1997;137(6):677–689.

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