Multilevel Examination of Job Satisfaction and Career Intentions of Collegiate Athletic Trainers: A Quantitative Approach

Christianne M. Eason, PhD, ATC*; Stephanie M. Mazerolle, PhD, ATC, FNATA†; Craig R. Denegar, PhD, PT, ATC, FNATA†; William A. Pitney, EdD, ATC, FNATA‡; Jennifer McGarry, PhD†

*Lasell College, Newton, MA; †University of Connecticut, Storrs; ‡Northern Illinois University, DeKalb

Context: Recent employment data from collegiate athletic training settings have demonstrated departure trends among men and women. These trends have been hypothesized to be related to work-life balance. However, work-life balance is only 1 aspect of a myriad of factors. Due to the complex nature of the work-life interface, a multilevel examination is needed to better understand the precipitators of departure.

Objective: To quantitatively examine factors that may influence collegiate athletic trainers' (ATs') job satisfaction and career intentions via a multilevel examination of the work-life interface.

Design: Cross-sectional study.

Setting: Web-based questionnaire.

Patients or Other Participants: Athletic trainers employed in National Collegiate Athletic Association Division I, II, or III or National Association of Intercollegiate Athletics colleges or universities (N = 299: 56.5% female, 43.5% male). The average age of participants was 33.6 \pm 8.3 years, and their average experience was 10.3 \pm 7.6 years.

Data Collection and Analysis: Participants responded to an online questionnaire consisting of demographic questions, 9 Likert-scale surveys, and open-ended questions. Job-satisfaction Scores (JSSs) and intention-to-leave scores (ITLSs) served as the dependent variables and factors from individual, organizational, and sociocultural levels were the independent variables. Hierarchical regression analysis was run to determine the predictability of factors.

Results: No sex differences in ITLS or JSS were found in our sample. Independent variables explained 68.5% of the variance in JSS and 28.8% of the variance in ITLS. Additions of factor levels increased the percentage of explained variance in both scores.

Conclusions: A combination of individual-, organizational-, and sociocultural-level factors was able to best predict JSS and ITLS among collegiate ATs.

Key Words: workplace strategies, organizational culture

Key Points

- In the collegiate clinical setting, no sex differences were present regarding job satisfaction or intention to leave.
- Job satisfaction and intention to leave can be better understood by examining factors at multiple levels.
- Individual-level factors alone did not fully explain job satisfaction or intention to leave.

mployee turnover is a normal and unavoidable occurrence within the American workforce; none-✓ theless, a high rate of voluntary employee withdrawal becomes problematic, as it can negatively influence many aspects of an organization.¹ Within allied health care, professional turnover has the potential to negatively affect patient care and organizational effectiveness.¹ Within the athletic training profession, Capel² reported on athletic trainer (AT) retention in 1990, and since then, attrition and retention have become objectively well-researched topics,3-6 particularly because a decline in professionals overlaps with a time when clinicians are seriously needed.⁶ Kahanov and Eberman⁶ identified a decline in both male and female ATs in their late 20s and early 30s in the athletic training labor force. Women composed the majority of the athletic training population between the ages of 22 and 28 years, but their proportion declined drastically between the ages of 28 and 35 years. Also, the males in their sample shifted employment

from the clinical and collegiate settings to the secondary school setting in their middle to late 40s.

Researchers⁷ have recognized the need for a multilevel examination of the work-life interface. Because of the complex nature of the work-life interface and its relation to job satisfaction and career intentions, a multilevel examination is necessary to better understand these phenomena within the athletic training profession. A failure to investigate multilevel systems through a multidimensional lens may end in several critical problems. *Ecological fallacy* occurs when relationships observed in groups are assumed to hold true for individuals.⁸ *Atomistic fallacy* occurs when interpretations about groups are inaccurately concluded from individual-level information.⁹ These types of fallacies occur when relationships at 1 particular level are inappropriately assumed to occur in the same fashion at other levels. It is therefore essential to examine the work-

Table 1. Participant Demographic Information

Characteristic	Current Study Demographics, No. (%)
	140. (70)
Female Male	169 (56.5) 130 (43.5)
Highest level of education (N = 294)	
Bachelor's Master's Doctorate	21 (7) 256 (85.6) 17 (5.7)
Position (N = 299)	
Assistant AT Head AT Associate AT Director of sports medicine Other	189 (63.2) 26 (8.7) 29 (9.7) 12 (4) 43 (14.4)
$\begin{array}{l} \text{Organizational structure (N=299)} \\ \text{Academics} \\ \text{Athletics} \\ \text{Medical} \\ \text{Other} \end{array}$	16 (5.4) 236 (78.39) 39 (13) 8 (2.7)
Contract length, mo (N = 299)	
9 10 11 12 Other	22 (7.4) 62 (20.7) 19 (6.4) 183 (61.2) 13 (4.3)
Relationship status (N = 299)	
Married Single Divorced Other	124 (41.5) 161 (53.8) 4 (1.3) 10 (3.3)
Family status (N = 299)	
No children Children	204 (68.2) 95 (31.8)
College/university setting (N = 299)	
National Collegiate Athletic Association division I II III National Association of Intercollegiate Athletics	154 (51.5) 48 (16.1) 73 (24.4) 24 (8)

Abbreviation: AT, athletic trainer.

life interface through a multilevel lens to account for individual-, organizational-, and sociocultural-level factors.

The primary purpose of our study was to quantitatively examine and develop a better understanding of the factors that may influence collegiate ATs' job satisfaction and career intentions via a multilevel assessment of the worklife interface. We specifically targeted collegiate ATs because they represent the largest population of National Athletic Trainers' Association (NATA) members¹⁰ and because the organizational demands of the setting have been reported in the literature.¹¹⁻¹⁴ We hypothesized that a combination of individual-, organizational-, and sociocultural-level factors would be a better predictor of job satisfaction and career intentions than any single unilevel examination. Additionally, we proposed that women would have greater departure intentions than their male counterparts, years of certification would negatively correlate with the intention to depart the profession, and ATs who worked more than 60 hours per week would have greater intentions to leave than those who worked 60 hours per week or less.

METHODS

Participants

All participants in this study (N = 299) were certified ATs employed in National Collegiate Athletic Association (NCAA) Division I, II, or III or National Association of Intercollegiate Athletics (NAIA) colleges or universities and were NATA members. Athletic trainers employed in the collegiate/university setting were purposefully chosen because they represent the largest population of NATA members.¹⁰ The inclusion criterion was employment in the collegiate or university setting. Participants were excluded from the study if they were graduate assistants or intern ATs. Demographic information is found in Table 1.

Procedures

This study was part of a larger investigation aimed at examining the career intentions of collegiate ATs from a multilevel perspective.¹⁵ A cross-sectional, Web-based survey design was used to collect data. We uploaded the survey instruments to Qualtrics (Provo, UT) to collect data from participants. After receiving institutional review board approval for the study, we contacted the NATA to obtain the names and e-mail addresses of ATs currently working in the collegiate or university setting. The NATA provided a list of 2000 e-mail addresses; 1653 were viable (for others, either e-mail addresses were inactive or individuals responded to let us know they did not meet the inclusion criteria). Initial recruitment e-mails consisted of an overview of the study as well as a link to the online survey. Two e-mail reminders were sent to all participants prompting them to complete the survey if they had not yet done so. To maintain the confidentiality of our participants, we were not able to link responses to e-mail addresses; thus, all participants were e-mailed. Reminder e-mails were sent 2 and 4 weeks after the initial recruitment e-mail. The online survey included demographic questions, 9 Likertscale surveys, and open-ended questions.

Questionnaires

To examine factors at multiple levels, we carefully selected previously validated surveys in order to ensure a multilevel assessment. Additionally, for a study in athletic training, it was important to select surveys that measured specific factors at the individual level of analysis as opposed to the departmental level of analysis. The original Cronbach α for each questionnaire is shown in Table 2. We briefly describe each scale used in this study.

Work-Time Control. Ala-Mursula et al¹⁶ created a work-time control survey in 2005 as a way of determining if absence due to work stress or sickness is related to the amount of control employees have over their working time. Providing employees with control over their work time is likely to save organizations considerable financial resources through fewer sickness absences.

Professional Identity and Values Scale. The Professional Identity and Values Scale was developed as a measure of counselor professional identity development.¹⁷

Table 2. Reliability Scores of Validated Survey Instruments (α Values)

	Reliat	Reliability		
Questionnaire Component	Previous Studies	Current Study		
Work-time control scale	0.86	0.82		
Professional Identity and Values Scale	0.80	0.80		
Perceived organizational family support scale	0.94	0.92		
Perceived supervisory family support scale	0.63-0.93	0.96		
Work-family conflict survey	0.85	0.69		
Work-family enrichment scale	0.64-0.86	0.78		
Attitudes Toward Women Scale	0.81	0.83		
Job Satisfaction Survey	0.77–0.91	0.90		
Intention to Leave Survey	0.86	0.83		

The original 32-item Healey¹⁷ Professional Identity and Values Scale contained 2 subscales, Professional Orientation and Values (18 questions) and Professional Development (14 questions).

Perceived Organizational Family Support. All the work-family policies and practices offered by an organization would be considered organizational family support. However, simply offering work-life programs does not necessarily mean that employees within the organization find the programs supportive of their work-life needs.¹⁸ Therefore, it is essential to measure employees' perceptions of organizational support. Jahn et al¹⁹ developed a survey that measures the tangible and intangible support employees perceive.

Perceived Supervisory Family Support. Although an organization may offer numerous family-friendly policies and programs, a supervisor must convey that information to employees and create an environment in which employees feel as though they can take advantage of the offered programs. Allen¹⁸ demonstrated that supervisor support had both direct and indirect effects on employee attitudes regarding work-family conflict, organizational commitment, job satisfaction, and turnover intention. As originally formulated, this survey asked parents to indicate the degree to which supervisors were willing to be flexible and understanding when work-family conflicts arose.

Work-Family Conflict. *Work-family conflict* is a form of inter-role conflict in which the demands of functioning in the 2 domains of work and family are incompatible in some aspect.²⁰ The majority of measures used currently recognize the bidirectional nature of the conflict.

Work-Family Enrichment. It is important to examine as an individual factor the potentially positive experiences one may encounter as a result of work and life crossover. A short, valid survey of work-life enrichment was created by Kacmar et al^{21} to measure work-family enrichment.

Attitudes Toward Women Scale. The Attitudes Toward Women Scale is the most widely used instrument to assess attitudes about women's rights and roles in society.²² The Attitudes Toward Women Scale places individuals "on a continuum of attitudes ranging from traditional to egalitarian."²³ The Attitudes Toward Women Scale was included to add a macro-level sociocultural factor to this analysis.

Job Satisfaction. Job satisfaction has been shown to be the main predictor of intention to leave a profession or organization.^{24,25} A person with greater job satisfaction is less likely to leave a profession than an individual with less job satisfaction.²⁵ The Job Satisfaction Survey consists of 2 subscales: Intrinsic Satisfaction and Extrinsic Satisfaction. A higher job satisfaction score (JSS) represents a higher level of general job satisfaction.

Career Intentions. Investigating career intentions offers an indication of whether an employee will continue in his or her current position, look for another position in the same profession, or depart the profession entirely. It is important to remember that career intentions examine potential future behavior and do not represent actual turnover or attrition. For this study, we used the Intention to Leave Survey created by Terranova and Henning,²⁶ which comprises 7 questions to determine the respondent's intention to leave the athletic training profession. The results of the career-intentions scale provided us with our intention-to-leave score (ITLS) dependent variable.

Statistical Analysis

The Cronbach α was used to determine each instrument's internal consistency. Participant demographics consisted of the following variables: individual (age, sex, race or ethnicity, highest level of education, years of experience, vears in current position, marital status, and family status) and organizational (NCAA or NAIA division of employment, organizational reporting structure, average number of hours worked per week, contract length, and NATA district of employment). The independent variables derived from survey responses were individual (work-family conflict, work-family enrichment, and professional identity and values), organizational (work-time control, perceived organizational family support, and perceived supervisory family support), and sociocultural (attitudes toward women). Our dependent variables were JSSs and ITLSs. Data were downloaded from Qualtrics into an Excel (Microsoft Corp, Redmond, WA) spreadsheet, which we converted to an SPSS (version 22.0; IBM Corp, Armonk, NY) worksheet. Descriptive statistics and significance testing were calculated using SPSS.

A Kolmogorov-Smirnov test was used to test for normality of the main dependent variables, job satisfaction and career intentions. Separate independent *t* tests were conducted to determine if there was a difference in job satisfaction or career intentions based on sex, years of experience (dichotomized to <10 or \geq 10 years of experience), or average number of hours worked per week in season (dichotomized to \leq 60 or \geq 60 h/wk). A 1-way analysis of variance (ANOVA) was performed to determine if NCAA or NAIA division of employment affected job satisfaction or career intentions.

Before running a hierarchical multiple regression, we tested relevant assumptions. Because the independent variables were not combinations of other independent variables, the assumption of singularity was met. Correlations of the independent variables (Table 3) revealed that no variables were highly correlated except for perception of organizational family support and perception of supervisory family support scores. However, the assumption of multicollinearity was met because tolerance and the variance inflation factor (collinearity statistics) were within accepted limits.²⁷ Mahalanobis distance scores revealed no multivariate outliers, and residual and scatter plots indicated that assumptions of linearity, normality, and homoscedasticity

Table 3. Hierarchical Regression Inde	ependent Var	iable Correlation	S									
		Perceived Organizational	Perceived Supervisory			Attitudes Toward	Professional Identity and					
	Work-Time	Family	Family	Work-Family	Work-Family	Women	Values			Work	Marital	Family
Scale	Control	Support	Support	Conflict	Enrichment	Scale	Scale	Age	Sex	h/wk	Status	Status
Work-time control	ł	0.481 ^a	0.367 ^a	-0.182ª	0.249ª	-0.051	0.189ª	0.143 ^b	-0.072	-0.168ª	-0.165 ^a	0.216 ^a
Perceived organizational family support		-	0.706ª	-0.295 ^a	0.457 ^a	0.081	0.224ª	-0.022	-0.041	-0.090	-0.096	0.095
Perceived supervisory family support			-	-0.260 ^a	0.437ª	0.006	0.208ª	-0.071	0.007	-0.109	-0.034	0.060
Work-family conflict				-	-0.372 ^a	-0.191^{a}	—0.267 ^a	0.032	-0.061	0.190 ^a	-0.052	0.106
Work-family enrichment					-	0.139 ^b	0.321 ^a	-0.062	0.078	-0.078	-0.116^{b}	0.057
Attitudes Toward Women Scale						-	0.227 ^a	-0.157 ^a	0.345 ^a	-0.045	0.069	-0.140 ^b
Professional Identity and Values Scale							-	0.149 [⊳]	0.053	-0.039	-0.145 ^b	0.122 ^b
Age								-	-0.283 ^a	-0.037	-0.259 ^a	0.482 ^a
Sex									-	–0.182 ^a	0.227 ^a	-0.285 ^a
Work h/wk										-	0.014	-0.064
Marital status											-	-0.444 ^a
Family status												1
^a Correlation is significant at the .01 le ^b Correlation is significant at the .05 le	evel (2 tailed). evel (2 tailed).											

were satisfied.²⁷ Two 4-stage hierarchical multiple regressions were conducted, one with JSS as the dependent variable and the other with ITLS as the dependent variable. Participant demographics (age, sex, marital status, family status, and average number of hours worked per week in season) were entered as stage 1 of the regression as a control. We specifically wanted to include these variables to remove their effects from the regression equation. The individual-level factors (work-time control, professional identity and values, and work-family enrichment) were entered at stage 2, organizational-level factors (work-time control, perception of organizational family support, and perception of supervisory family support) at stage 3, and the sociocultural-level factor (attitudes toward women) at stage 4. The relationship variables were entered in this manner to examine the factor-level effect on the fit of the regression model.

RESULTS

The internal consistencies for all instruments used in this study can be seen in Table 2. We found the Cronbach α for all surveys to be ≥ 0.69 , indicating moderate to strong internal consistency. A Spearman correlation demonstrated a moderate negative correlation between job satisfaction and career intentions (r = -0.408, P < .001).

Demographics

Of the 1653 e-mails that were sent to participants who met the inclusion criterion, 487 surveys were started and 299 were completed (39% dropout rate), resulting in an 18.1% response rate. Our participants were 33.6 \pm 8.3 years old (range = 22–61 years), with 10.3 \pm 7.6 (range = 0.5-37) years of experience working as an AT. They worked 60 \pm 12.1 (range = 10–100) hours a week during their in season, 45.8 ± 10.6 (range = 5–85) hours a week during their off season, and 21.3 \pm 16.1 (range = 0–70) hours a week during the summer. Participants reported their racial or ethnic identity as white, not of Hispanic origin (n = 258, 86.3%; Hispanic (n = 11, 3.7%); black, not of Hispanic origin (n = 9, 3%); Asian or Pacific Islander (n =9, 3%); multiethnic (n = 8, 2.7%); or other, not specified (n = 4, 1.3%). All participants who reported having children also reported being married. Additional demographic information can be found in Table 1.

Participants' overall scores on the survey are shown in Table 4. The JSS did not differ between men (73.0 \pm 11.7) and women (73.8 \pm 10.1; $t_{291} = -.609$, P = .543; 95% confidence interval [CI] = -3.3, 1.7) or between ATs with <10 years of experience (72.8 \pm 10.5) and those with ≥ 10 years of experience (74.5 ± 11.2; $t_{291} = -1.370$, P = .172; 95% CI = -4.29, 0.77). We noted no JSS differences among NCAA or NAIA divisions (Division I = 73.4, Division II = 72.7, Division III = 73.6, NAIA = 75.1) as determined by 1-way ANOVA ($F_{3,289} = 0.261$, P =.853). However, a difference was present in the JSS between ATs who worked ≤ 60 h/wk (74.8 \pm 10.5) and those who worked >60 h/wk (71.4 \pm 11.1; $t_{284} = 2.630$, P = .009; 95% CI = 0.86, 6.01).

The ITLS did not differ between men (10.9 \pm 3.6) and women (11.6 \pm 3.7; $t_{297} = -1.46$, P = .144; 95% CI = -1.5, 0.22), between ATs with <10 years of experience (11.5 \pm 3.9) and those with ≥ 10 years of experience (11 \pm 3.6; t_{297}

Table 4. Participant Scores on Survey Scales

Questionnaire Component	Scale Range	Meaning of Score	Participants' Scores, Mean \pm SD (Range)
Work-time control scale	1–6	Higher score indicates greater perception of control	2.9 ± 0.8 (1–5)
Professional Identity and Values Scale	20–120	Higher score indicates greater PIVS	92.9 ± 9.1 (51–117)
Perceived organizational family support scale	10–50	Higher score indicates greater perceived support	30.1 ± 7.3 (10–46)
Perceived supervisory family support scale	14–70	Higher score indicates greater perceived support	47.0 ± 12.4 (14–70)
Work-family conflict survey	5–30	Higher score indicates greater conflict	15.7 ± 3.8 (6–30)
Work-family enrichment scale	5–30	Higher score indicates greater enrichment	21.3 \pm 3.6 (7–30)
Attitudes Toward Women Scale	0–75	Continuum with 0 = traditional, 75 = egalitarian gender ideologies	59.7 ± 9.2 (22–75)
Job Satisfaction Survey	20–100	Higher score indicates greater job satisfaction	73.5 ± 10.8 (36–100)
Intention to Leave Survey	7–28	Higher score indicates greater desire to depart the profession	11.3 ± 3.8 (7–28)

= 1.095, P = .275; 95% CI = -0.39, 1.36), or between ATs who worked ≤ 60 h/wk (11.3 \pm 3.7) and those who worked >60 h/wk (11.2 \pm 3.7; $t_{290} = 0.195$, P = .784; 95% CI = -0.79, 0.97). No significant ITLS differences were evident among NCAA or NAIA divisions (Division I = 10.9, Division II = 11.2, Division III = 11.5, NAIA = 11.9) as determined by 1-way ANOVA ($F_{3.295} = .490$, P = .690).

Regression

Summaries of the hierarchical regression analyses for variables predicting JSS can be found in Table 5 and for variables predicting ITLS in Table 6 (which depicts block 4 [all variables included in the equation]). We included the squared semipartial (sr^2) value in both tables. The sr^2 indicates the unique contribution of an independent variable: specifically, how much the R^2 will decrease if that variable is removed from the regression equation. When all independent variables were included in stage 4 of the regression model, they accounted for 28.8% of the variance in ITLS. The hierarchical multiple regression with JSS as the dependent variable revealed that at stage 1, the demographic variables contributed significantly to the regression model ($F_{7,237} = 2.22$, P = .033) and accounted for 6.2% of the variation in JSS. Introducing the individual-

level factor variables explained an additional 37.7% of variation in JSS, and this change in R^2 was significant $(F_{3,234} = 18.29, P < .001)$. Adding the organizational-level factor variables to the regression model explained an additional 24.6% of the variation in JSS, and this change in R^2 was significant $(F_{3,231} = 38.58, P < .001)$. Lastly, the addition of the sociocultural-level factor variable did not explain any additional variation in JSS, and this change in R^2 was not significant $(F_{1,230} = 35.75, P = .559)$. The most important predictor of JSS was perception of supervisory family support, which uniquely explained 8% of the variance in JSS. When all independent variables were included in stage 4 of the regression model, they accounted for 68.5% of the variance in JSS.

The hierarchical multiple regression with ITLS as the dependent variable revealed that at stage 1, the demographic variables did not contribute to the regression model $(F_{7,243} = .662, P = .704)$ and accounted for 1.9% of the variation in ITLS. Introducing the independent-level factor variables explained an additional 19.6% of variation in ITLS, and this change in R^2 was significant $(F_{3,240} = 6.56, P < .001)$. Adding the organizational-level factor variables to the regression model explained an additional 5.2% of the variation in ITLS, and this change in R^2 was significant $(F_{3,240} = 6.56, P < .001)$. Adding the organizational-level factor variables to the regression model explained an additional 5.2% of the variation in ITLS, and this change in R^2 was significant $(F_{3,237} = 6.63, P = .001)$. Lastly, the addition of the

Table 5. Summary of Hierarchical Regression Analysis for Variables Predicting Job Satisfaction Score^a

Variable	β	t	sr ²	R	R ²	ΔR^2
Step 1				0.248	0.062	0.062
Step 2				0.662	0.439	0.377
Step 3				0.827	0.685	0.246
Step 4				0.828	0.685	0.000
Age	0.019	0.319	0.00			
Sex	-0.243	-0.262	0.00			
Marital status	-1.069	-1.763	0.00			
Family status	-1.085	-0.995	0.00			
National Collegiate Athletic Association or						
National Association of Intercollegiate Athletics division	-0.342	-0.826	0.00			
Work h/wk	-0.062	-1.766	0.00			
Organizational structure	0.596	0.729	0.00			
Work-family conflict	-0.183	-10.498	0.00			
Work-family enrichment	0.683	4.953 ^b	0.03			
Professional Identity and Values Scale	0.239	4.753 ^b	0.03			
Work-time control	1.974	3.328°	0.02			
Perceived organizational family support	0.168	1.949	0.00			
Perceived supervisory family support	0.356	7.558 ^b	0.08			
Attitudes Toward Women Scale	-0.029	-0.586	0.00			

^a N = 251.

^b *P* < .001.

° *P* < .05.

Table 6. Summary of Hierarchical Regression Analysis for Variables Predicting Intention to Leave^a

Variable	β	t	sr ²	R	R ²	ΔR^2
Step 1				0.137	0.019	0.019
Step 2				0.463	0.215	0.196
Step 3				0.516	0.267	0.052
Step 4				0.537	0.288	0.021
Age	-0.033	-1.137	0.00			
Sex ^b	-0.085	-0.182	0.00			
Marital status ^c	0.126	0.426	0.00			
Family status ^d	-0.193	-0.353	0.00			
Work h/wk	-0.012	-0.687	0.00			
Work-family conflict	0.226	3.761°	0.04			
Work-family enrichment	-0.197	-2.910 ^f	0.03			
Professional Identity and Values Scale	-0.008	-0.311	0.00			
Work-time control	-0.033	-0.110	0.00			
Perceived organizational family support	-0.065	-1.492	0.00			
Perceived supervisory family support	-0.042	-10.807	0.01			
Attitudes Toward Women Scale	0.063	2.644 ^f	0.02			

^a N = 251.

^b Sex: male = 1, female = 2.

^c Marital status: married = 1, single = 2.

^d Family status: no children = 1, children = 2.

sociocultural-level factor variable explained an additional 2.1% of the variation in ITLS, and this change in R^2 was also significant ($F_{1,236} = 6.81$, P = .009).

DISCUSSION

This study was unique as we believe we are the first to quantitatively examine the work-life interface of collegiate ATs and its effect on job satisfaction and career intentions. Our most important finding was that a combination of individual, organizational, and sociocultural factors predicted the JSS of collegiate ATs. All surveys used in this study demonstrated adequate levels of internal consistency. These results suggest that a failure to examine the work-life interface from a multilevel perspective will result in an incomplete understanding of the concept.

Analysis of our participant demographics revealed that our sample exhibited a high JSS and a low ITLS. Also, we found that an increased JSS corresponded with a lower ITLS, which is similar to the findings of previous researchers in athletic training²⁶ and other professions.^{25,28,29} Examining career intentions offers only an indication of whether an employee will persist in his or her current position, look for a different position within the same profession, or depart the profession entirely, though intention to leave has been identified as a major predictor of the terminal action of turnover.²⁵

Demographic Results

Our participants had low levels of work-family conflict, little control over their work schedules, and high levels of work-family enrichment, perceived supervisory family support, and professional identity. Our participants scored closer to the egalitarian edge of the gender ideology spectrum. Their overall lower levels of work-family conflict may represent a selection bias in that only individuals with low levels of work-family conflict may have felt that they had the time to complete our survey, whereas individuals who had higher levels of work-family conflict did not choose to either start or finish this survey. This could explain our high survey-dropout rate.

No sex differences in JSS or ITLS were seen in our sample. This is consistent with athletic training literature^{4,30-32} that showed men and woman used similar worklife balance strategies and cited comparable antecedents of work-life conflict. Mazerolle et al³³ reported that men and women had similar feelings regarding willingness to leave the profession. Furthermore, we determined that NCAA level of employment did not influence JSS or ITLS. We dichotomized the participants' years of experiences (<10 or >10) based on reports that employees with less than 10 years of experience had greater intentions to leave²⁹; however, years of experience did not affect our participants' JSS or ITLS. The average number of hours worked per week in season did not influence our participants' ITLS score, but ATs who worked more than 60 hours on average during their in season were less satisfied with their jobs. Previous investigators⁴ in athletic training demonstrated that long work hours created sources of conflict in regard to work-life balance. Similarly, Pitney³⁴ observed that the number of hours worked was a contributing factor to role strain.

Predictability of Individual, Organizational, and Sociocultural Factors

After controlling for demographic factors, we found that work-family enrichment, work-time control, professional identity, and perceived supervisory family support predicted JSS. A combination of individual, organizational, and sociocultural factors accounted for 68.5% of the variance in JSS. Perceived supervisory family support accounted for 8% of the total variance in JSS by itself. Many researchers agreed that leaders had a reasonably significant influence on establishing organizational culture through a top-down perspective,^{35–37} and in athletic training, head ATs have been cited as work-life balance role models and identified as the gatekeepers for maintaining balance.^{38,39}

^e *P* < .001.

^f *P* < .05.

After controlling for demographic factors, we noted that work-family conflict, work-family enrichment, and gender ideologies were predictors of ITLS. As work-family conflict scores increased, so did ITLS, and when workfamily enrichment scores increased, ITLS scores decreased. Although these factors statistically predicted ITLS, all individual, organizational, and sociocultural factors entered into the model accounted for only 28.8% of the variance in ITLS. As we stated previously, intention to leave does not represent actual turnover. Therefore, examining job satisfaction can further broaden our understanding of the worklife interface.

The advantages of work-life enrichment have been documented in the literature⁴⁰ and can be categorized into 3 distinct areas: (1) work related, (2) non-work related, and (3) health related. Greenhaus and Powell⁴¹ explained that a parent who had strong time-management skills that were developed through his or her role as a parent created more positive emotions at home, which transferred to more positive emotions at work. Thus, it was not surprising that higher levels of work-family enrichment affected both the JSS and the ITLS of our participants. Rhoades and Eisenberg⁴² reported that when beneficial treatment was sensed by one group, the other group reciprocated, leading to positive outcomes for both. This notion can be applied to the work-life interface and helps to explain the link we observed between perceived supervisory family support and JSS. If employees perceived that the organizations they worked for were helping them balance their work and life roles, they were likely to feel supported by their organizations.⁴² In return, employees felt obligated to reciprocate in the form of more favorable attitudes toward their job and organization.43

LIMITATIONS AND FUTURE DIRECTIONS

Our response rate (18.1%) was fair, yet it was comparable with that of other online-based surveys conducted and published in the athletic training literature.^{33,44} The results of this study may not be generalizable to all athletic training professionals because we included only ATs employed in the college or university setting. The job demands and patient populations of other athletic training clinical settings may affect professional identity. We used an intention-to-leave survey, which assessed only the general willingness to depart the profession or the participant's current position. Future authors should look at career intentions over time and measure actual turnover to expand our knowledge. Additionally, as recent researchers have highlighted the influence time of year may have on individuals' perceptions of their work and personal lives,¹² future studies examining the work-life interface should be conducted in a longitudinal manner.

CONCLUSIONS

We found that a combination of individual-, organizational-, and sociocultural-level factors was best able to predict JSS and ITLS among collegiate ATs. These results give credence to the importance of examining the work-life interface from a multilevel approach. To focus solely on factors at any 1 level would discredit the value and effect of factors from other levels. We established that individuallevel factors had a bottom-up effect on job satisfaction and intention to leave but also that sociocultural- and organizational-level factors had predictive relationships with these outcomes. The goal of this research is to promote the development of policies that will stimulate change in the organization and enhance the work-life interface of individuals to help retain ATs within all settings.

ACKNOWLEDGMENTS

We thank Laura Burton, PhD, for her contributions to this manuscript.

REFERENCES

- Price JL. Reflections on the determinants of voluntary turnover. Int J Manpow. 2001;22(7):600–624.
- Capel SA. Attrition of athletic trainers. J Athl Train. 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.
- Mazerolle SM, Pitney WA, Casa DJ, Pagnotta KD. Assessing strategies to manage work and life balance of athletic trainers working in the National Collegiate Athletic Association Division I setting. J Athl Train. 2011;46(2):194–205.
- Rice L, Gilbert W, Bloom G. Strategies used by Division I female athletic trainers to balance family and career demands. *J Athl Train*. 2001;36(suppl 2):S73.
- Kahanov L, Eberman LE. Age, sex, and setting factors and labor force in athletic training. J Athl Train. 2011;46(4):424–430.
- Dixon MA, Bruening JE. Perspectives on work-family conflict in sport: an integrative approach. *Sport Manage Rev.* 2005;8(3):227– 253.
- Piantadosi S, Byar DP, Green SB. The ecological fallacy. Am J Epidemiol. 1988;127(5):893–904.
- 9. Hox JJ. *Multilevel Analysis: Techniques and Applications*. Mahwah, NJ: Lawrence Erlbaum Associates; 2002.
- Membership statistics. National Athletic Trainers' Association Web site. http://members.nata.org/members1/documents/membstats/ index.cfm. Accessed June 23, 2017.
- 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.
- Mazerolle S, Eason C. A longitudinal examination of work-life balance in the collegiate setting. J Athl Train. 2016;51(3):223–232.
- Hendrix AE, Acevedo EO, Hebert E. An examination of stress and burnout in certified athletic trainers at Division I-A universities. J Athl Train. 2000;35(2):139–144.
- Mazerolle SM, Eason CM, Pitney WA. Athletic trainers' barriers to maintaining professional commitment in the collegiate setting. *J Athl Train*. 2015;50(5):524–531.
- Eason CM. A Multilevel Examination of Career Intentions in Athletic Training: Individual, Organizational and Sociocultural Factors [dissertation]. Storrs: University of Connecticut; 2016.
- Ala-Mursula L, Vahtera J, Linna A, Pentti J, Kivimaki M. Employee worktime control moderates the effects of job strain and effortreward imbalance on sickness absence: the 10-town study. J Epidemiol Community Health. 2005;59(10):851–857.
- Healey AC. Female Perspectives of Professional Identity and Success in the Counseling Field [dissertation]. Norfolk, VA: Old Dominion University; 2009.
- Allen TD. Family-supportive work environments: the role of organizational perceptions. J Vocat Behav. 2001;58(3):414–435.

- Jahn EW, Thompson CA, Kopelman RE. Rationale and construct validity evidence for a measure of perceived organizational family support (POFS): because purported practices may not reflect reality. *Community Work Fam.* 2003;6(2):123–140.
- 20. Greenhaus JH, Beutell NJ. Sources of conflict between work and family roles. *Acad Manage Rev.* 1985;10(1):76–88.
- Kacmar KM, Crawford WS, Carlson DS, Ferguson M, Whitten D. A short and valid measure of work-family enrichment. *J Occup Health Psychol.* 2014;19(1):32–45.
- 22. Byrne ZS, Felker S, Vacha-Haase T, Rickard KM. A comparison of responses on the Attitudes Toward Women Scale and Attitudes Toward Feminism Scale: is there a difference between college-age and later-life adults with the original norms? *Meas Eval Counsel Dev.* 2011;44(4):248–264.
- 23. Spence JT, Helmreich R. The attitudes toward women scale: an objective instrument to measure attitudes toward the rights and roles of women in contemporary society. *JSAS Catalog Selected Doc Psychol.* 1972;2:66–67.
- 24. 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 Stud.* 2007;44(2):297–314.
- Mobley WH, Horner SO, Hollingsworth AT. An evaluation of precursors of hospital employee turnover. J Appl Psychol. 1978; 63(4):408–414.
- Terranova AB, Henning JM. National Collegiate Athletic Association division and primary job title of athletic trainers and their job satisfaction or intention to leave athletic training. *J Athl Train.* 2011; 46(3):312–318.
- 27. Hair JF, Black WC, Babin BJ, Anderson RE. *Multivariate Data Analysis.* 7th ed. Upper Saddle River, NJ: Prentice Hall; 2010.
- Irvine DM, Evans MG. Job satisfaction and turnover among nurses: integrating research findings across studies. *Nurs Res.* 1995;44(4): 246–253.
- Hellman CM. Job satisfaction and intent to leave. J Soc Psychol. 1997;137(6):677–689.
- Mazerolle SM, Eason CM, Trisdale WA. Work-life balance perspectives of male NCAA Division I athletic trainers: strategies and antecedents. *Athl Train Sports Health Care*. 2015;7(2):50–62.
- 31. Mazerolle SM, Ferraro EM, Eason CM, Goodman A. Factors and strategies contributing to the work-life balance of female athletic

trainers employed in the NCAA Division I setting. *Athl Train Sports Health Care*. 2013;5(5):211–222.

- 32. Mazerolle SM, Eason CM. Work-life balance: a perspective from the athletic trainer employed in the NCAA Division I setting. *J Issues Intercoll Athl.* 2013;6:236–248.
- Mazerolle SM, Eason CM, Pitney WA, Mueller MN. Sex and employment-setting differences in work-family conflict in athletic training. J Athl Train. 2015;50(9):958–963.
- 34. 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.
- Erdogan B, Liden RC, Kraimer ML. Justice and leader-member exchange: the moderating role of organizational culture. *Acad Manage J.* 2006;49(2):395–406.
- 36. Frontiera J. Leadership and organizational culture transformation in professional sport. *J Leadersh Organ Stud*. 2010;17(1):71–86.
- Slack T, Parent MM. Managing organizational culture. In: Slack T, Parent MM. Understanding Sport Organizations: The Application of Organization Theory. 2nd ed. Champaign, IL: Human Kinetics; 2006:273–290.
- Mazerolle SM, Burton L, Cotrufo RJ. The experiences of female athletic trainers in the role of the head athletic trainer. *J Athl Train*. 2015;50(1):71–81.
- 39. Mazerolle SM, Goodman A, Pitney WA. Achieving work-life balance in the National Collegiate Athletic Association Division I setting, part I: the role of the head athletic trainer. *J Athl Train*. 2015; 50(1):82–88.
- McNall LA, Nicklin JM, Masuda AD. A meta-analytic review of the consequences associated with work-family enrichment. J Bus Psychol. 2010;25(3):381–396.
- Greenhaus JH, Powell GN. When work and family are allies: a theory of work-family enrichment. *Acad Manage Rev.* 2006;31(1):72–92.
- 42. Rhoades L, Eisenberg R. Perceived organizational support: a review of the literature. *J Appl Psychol.* 2002;87(4):698–714.
- Aryee S, Srinivas ES, Tan HH. Rhythms of life: antecedents and outcomes of work-family balance in employed parents. J Appl Psychol. 2005;90(1):132–146.
- Mazerolle SM, Monsma E, Dixon C, Mensch J. An assessment of burnout in graduate assistant certified athletic trainers. *J Athl Train*. 2012;47(3):320–328.

Address correspondence to Christianne M. Eason, PhD, ATC, Lasell College, 70 Maple Street, Newton, MA 02466. Address e-mail to ceason@lasell.edu.