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# A Multilevel Examination of Career Intentions in Athletic Training: Individual, Organizational and Sociocultural Factors

Christianne M. Eason

University of Connecticut - Storrs, [christianne.eason@uconn.edu](mailto:christianne.eason@uconn.edu)

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A Multilevel Examination of Career Intentions in Athletic Training: Individual,  
Organizational and Sociocultural Factors

Christianne Marie Eason, PhD, ATC

University of Connecticut, 2016

**Background:** Recent employment data in collegiate athletic training have demonstrated departure trends among males and females. These trends have been hypothesized to relate to issues of work-life balance. However, work-life balance is only one factor in a myriad of issues. Due to the complex nature of the work-life interface a multilevel examination is needed to better understand the precipitators of departure.

**Purpose:** Examine factors that may influence collegiate athletic trainers' job satisfaction and career intentions via multilevel examination of the work-life interface and validate the professional identity and values scale (PIVS) among an athletic trainer population.

**Study Design:** Mixed methods, cross-sectional study

**Methods:** Athletic trainers employed in NCAA Division I, II, III or NAIA colleges or universities (n = 299, 56.5% female, 43.5% male). Participants responded to an online questionnaire consisting of demographic questions, nine Likert scale surveys, and open ended questions during Phase I. Job Satisfaction Scores (JSS) and Intention to Leave Scores (ITLS) served as the dependent variables and factors from individual, organizational, and sociocultural levels were utilized as independent factors.

Hierarchical regression analysis was run to determine predictability of factors and an ROC curve was utilized to determine cutoff values for scales. Semi-structured phone interviews were conducted during Phase II. Qualitative data analysis utilized principles

of general inductive approach. Credibility was maintained using peer review and multiple analyst triangulation.

**Results:** Exploratory factor analysis reduced the PIVS survey from 32 to 20 items and revealed six factors. Independent variables explained 68.5% of the variance in JSS.

ROC curve analysis revealed cutoff scores on multiple scales indicating desired outcomes on JSS and ITLS. Qualitative themes linked to individual level factors included: *Athletic Identity*, *Intrinsic Motivation*, and *Conscientiousness & Extraversion*.

Organizational level factor themes included: *Inadequate Staff Size*, *Inequity between Hours and Salary*, and *Perceived Work Schedule Autonomy*. *Traditional Gender Ideologies* and *Egalitarian Gender Ideologies*

**Conclusions:** A combination of individual, organizational, and sociocultural level factors were able to best predict ITLS and JSS among collegiate athletic trainers. Establishing cutoff values on several scales provides a potential objective tool organizations can utilize in workplace retention strategies.

**Key Words:** retention, job satisfaction

A Multilevel Examination of Career Intentions in Athletic Training: Individual,  
Organizational and Sociocultural Factors

Christianne Marie Eason

B.S., University of Connecticut, 2006

M.S., James Madison University, 2008

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APPROVAL PAGE

Doctor of Philosophy Dissertation

A Multilevel Examination of Career Intentions in Athletic Training: Individual,  
Organizational, and Sociocultural Factors

Presented by

Christianne Marie Eason, MS, ATC

Major Advisor: \_\_\_\_\_  
Stephanie M. Mazerolle, Ph.D.

Associate Advisor: \_\_\_\_\_  
Laura J. Burton, Ph.D.

Associate Advisor: \_\_\_\_\_  
Craig R. Denegar, Ph.D.

Associate Advisor: \_\_\_\_\_  
Jennifer E. McGarry, Ph.D.

Associate Advisor: \_\_\_\_\_  
William A. Pitney, Ph.D.

University of Connecticut  
2016

To my mom, Susan C. Eason,  
For teaching me the value of education and always supporting my pursuit of learning.  
Love you to pieces

## **ACKNOWLEDGMENTS**

I would like to start by thanking my friends and family for their unwavering support over the years, especially Dad, Danielle, Rob, and Meg. There have been many ups and downs on this journey and not once have I ever felt alone in my pursuits. You have always encouraged and supported me on this long path and never once made me question my decisions to return to school to pursue my terminal degree. And thank you to my mom who instilled in me the value of learning.

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## CHAPTER I

### INTRODUCTION

In the athletic training profession work demands are complex, particularly in the collegiate setting where the environmental and cultural focus on winning often competes with best practices and standards of care.<sup>1</sup> Factors related to retention within the athletic training profession have become a broadly researched topic that was initially examined during a time of National Athletic Trainers' Association (NATA) membership growth in the early 1990's.<sup>2</sup> However, recent membership statistics have not reflected the same strong growth rate as seen in the early 90s, particularly among certified members. Additionally, the majority (51%) of athletic trainers who maintain NATA membership are between the ages of 18 and 29, with numbers steadily declining over the age of 30.<sup>3</sup> Kahanov and Eberman<sup>4</sup> recently examined athletic trainer employment patterns and found a general decline of athletic trainers in the main clinical settings occurred around age 30. They also found that female athletic trainers tended to leave the profession entirely around 28 years of age, while male athletic trainers tended to shift towards the secondary school setting around the age of 40. The trends in employment have sparked interest from a professional commitment standpoint as well as on an organizational level because both constructs provide a platform to understand career development as well as career intentions. The NATA membership data suggests that we do not have a clear understanding of the career intentions for athletic trainers.

Examining career intentions provides an indication of whether an individual will remain in their current position, look for another position within the same profession, or

depart the profession entirely. While career intentions do not measure actual turnover or attrition, intention to leave has been identified as a major predictor of turnover.<sup>5,6</sup> Job satisfaction, which is the degree to which an individual likes their job, has been shown to correlate to career intentions. A person with higher job satisfaction is less likely to leave a profession compared to individuals with lower job satisfaction scores.<sup>7</sup> Within athletic training, Terranova and Henning<sup>8</sup> found strong negative correlation between various facets of job satisfaction and intention to leave the profession.

Current athletic training research regularly demonstrates that certain negative aspects of the profession, such as travel demands, long hours, perceived inadequate compensation, and difficulty maintaining work-life balance create challenges for the athletic trainers.<sup>9-11</sup> With so many potential antecedents contributing to career departure, it has been speculated that this exodus is multi-factorial, with much attention being given to issues such as work-life balance (WLB),<sup>10-12</sup> job satisfaction,<sup>8</sup> burnout,<sup>13,14</sup> and professional commitment.<sup>15,16</sup>

The interface between work and personal life does not always need to be adverse in nature. Work-life enrichment is the degree to which experiences in one role increase the quality of life in the other role.<sup>17</sup> Essentially, if an individual partakes in several roles and is able to value the complimentary nature of both, they will encounter more positive outcomes and gain important resources to support their multiple roles.<sup>17,18</sup> The concept of work-life enrichment offers a comprehensive view of the advantageous side of the work-life interface. Additionally, literature within athletic training has demonstrated that individuals with affective professional commitment, which refers to identifying with a profession, remain in that profession because they

want to.<sup>19,20</sup> Individuals with greater professional identities are able to verbalize their role as a professional, their own professional philosophy, and their own approach with others, both inside and outside of their field.<sup>21-23</sup> Successful professional identity construction has been shown to positively correlate with career success.<sup>24,25</sup> Unfortunately, there is no known study within athletic training that has fully examined the interrelatedness of these advantageous or adverse constructs with those who indicate the potential to depart compared to those with the likelihood to persist.

Traditionally the work-life conflict and career intention literature have examined the constructs uni-dimensionally, examining both from an individual, sociocultural, or organizational perspective. However, Kozlowski and Klein<sup>26</sup> contend that multilevel theories are able to examine both the intricate top-down and bottom-up processes associated with complex systems. The ability to examine factors at multiple levels creates a more complete and integrated understanding of organizational and individual behavior. The value of the multilevel perspective is that by seeing the “big picture” we gain a better understanding of how to explain and solve problems. This study was inspired by the work of Dixon and Bruening<sup>27</sup> who developed a multilevel framework of work-life conflict among female collegiate coaches. By examining interactions at distinct levels they found that sociocultural, organizational, and individual factors influence the perception and consequences of work-life conflict. They were able to establish that higher-level environments (i.e. organizational culture) have the ability to shape and constrain lower level behaviors (i.e. perceptions of work-life conflict) and that individual attitudes and responses may shape organizational culture from the bottom-up. We know that work-life conflict may cause job dissatisfaction,<sup>28</sup> which in turn could lead to a

desire to depart the profession. Dixon and Bruening<sup>27</sup> showcased the experiences of women coaches at the Division I level in their multilevel model, which has application to athletic trainers as well as other healthcare professionals who must endure long work days. While coaching and athletic training are both professions situated within a sport organization we want to examine which factors impact the experience of work-life conflict that may lead to a desire to depart the profession at the organizational, individual, and sociocultural levels<sup>28</sup> for athletic trainers.

The college and university settings is an environment full of unique workplace challenges for the athletic trainer which often includes odd hours, long road trips resulting in nights away from home, high pressure to win, supervision of athletic training students, long competition seasons, last minute schedule changes, and organizational structures where supervisors may not be medical professionals.<sup>11,29,30</sup> While these individual issues may arise in other job settings and professions, you do not see them all in combination as frequently as you do in the college setting. While the Dixon and Bruening<sup>27</sup> model examined coaches, athletic training as a profession is unique in that it is a health care profession operating within a sport organization. Within athletic training, departmental goals focus on improvement in the health and well-being of their patients, whereas the workplace goals of coaches and sports organizations may focus more on success and profit. Additionally athletic trainers, unlike coaches have little control over their schedules and must adapt to others making and changing schedules.

### **Purpose Statement**

The purpose of this study is to examine and develop a greater understanding of the factors that may lead a collegiate athletic trainer to consider departing the



profession. Specifically we will utilize Dixon and Bruening's<sup>27</sup> multilevel model, which identified three levels contributing to the work-life interface as a theoretical foundation. It is important to understand that issues with retention and attrition in the athletic training profession are multi-factorial and are not solely based on an individual's own preferences and that there is a top-down and bottom-up implication. Once these factors are identified they are meant to be shared with sport organization leaders. These changes cannot be suggested, nor implemented until there is an understanding of the multifactorial needs of the athletic trainer. The goal of this study is to examine factors at multiple levels within athletic training that will identify these potentially complicated factor interactions and can ultimately be utilized to create retention strategies. Recognizing the multifaceted nature of work-life conflict may stimulate organizational policy change to help retain quality professionals.

### **Research Aims and Hypotheses/Research Questions**

We expect to find that athletic trainers' career goals and intentions to depart the profession will be influenced by a combination of organizational, individual, and sociocultural factors and that these factors will have both top-down and bottom-up influences. Our aims and hypotheses emerge from literature embedded in the collegiate setting, primarily coaching and athletic training literature that suggest career intentions can be influenced by multiple factors.

Specific Aim 1: To validate the professional identity and values scale among an athletic trainer population

H1: The professional identity and values scale will be a valid and reliable measure of professional identity among athletic trainers.

Specific Aim 2: To qualitatively examine the work-life interface from a multilevel perspective (individual, organizational, and sociocultural level factors), specifically related to job satisfaction and intention to leave.

RQ1: What individual factors influence the job satisfaction or career intentions of collegiate athletic trainers?

RQ2: What organizational factors influence the job satisfaction or career intentions of collegiate athletic trainers?

RQ3: What sociocultural factors influence the job satisfaction or career intentions of collegiate athletic trainers?

Specific Aim 3: To quantitatively examine the work-life interface from a multilevel perspective (individual, organizational, and sociocultural level factors), specifically related to job satisfaction and intention to leave.

H2: Women will have higher departure intentions than their male counterparts.

H3: Years of certification will negatively correlate with intention to depart the profession.

H4: Those athletic trainers who work more than 60 hours per week will have greater intentions to leave than those who work fewer hours per week.

H5: Individual level factors will be positively associated with intentions to depart the athletic training profession.

H6: Organizational level factors will be positively associated with intentions to depart the athletic training profession.

H7: A multilevel examination will be a better predictor of job satisfaction and intention to depart than any uni-level model

## **Independent and Dependent Variables**

### *Independent Variables*

1. Participant Demographics: self-reported demographic information provided by the participant which includes:
  - a. Age
  - b. Sex
  - c. Race
  - d. Years of Experience
  - e. Education
  - f. NATA District
  - g. Length of contract
  - h. Average number of hours worked per week (in-season, off-season, and summer)
  - i. Primary Job Title
  - j. Number of Full Time Athletic Trainers
  - k. Organizational structure
  - l. NCAA Division (I, II, III, or NAIA)
  - m. Marital Status
  - n. Family Status
- 1 Total Work-Time Control Score: Total score for each participant on the work-time control survey

2. Total Perceived Organizational Family Support Score: Total score for each participant on the Perceived Organizational Family Support Scale
3. Total Perceived Supervisor Family Support Score: Total score for each participant on the Perceived Supervisor Family Support Scale
4. Total Work-Family Conflict Score: Total score for each participant on the work-family conflict scale
5. Total Work-Family Enrichment Score: Total score for each participant on the Work-Family Enrichment Survey
6. Total Professional Identity and Values Score: Total score for each participant on the Professional Identity and Values Scale
7. Total Attitudes Towards Women Score: Total score for each participant on the Attitudes towards Women Scale

#### Dependent Variables

1. Total Intention to Leave Score: Total score for each participant on the Intention to Leave Survey
2. Total Job Satisfaction Score: Total score for each participant on the Job Satisfaction Scale

#### **Definitions**

For the purposes of this study, the following operational and conceptual definitions of terms will be utilized:

1. Job Satisfaction:

*Conceptual Definition:* The degree to which an individual likes their current job.

*Operational Definition:* Total scores on the Job Satisfaction Scale.<sup>31</sup>

Scoring was on a Likert-Scale with a range of 1-5 for each individual response, with a total range of 5-100; thus a higher score would indicate a higher level of job satisfaction.

2. *Intention to Leave:*

*Conceptual Definition:* The behavioral intention of an individual to voluntarily leave the profession of athletic training. Does not represent actual turnover.

*Operational Definition:* Total scores on the Job Satisfaction Scale developed by Terranova and Henning.<sup>8</sup> Scoring was on a Likert-Scale with a range of 1-4 for each individual response, with a total score range of 7-28; thus a higher score indicated a higher intention to leave the athletic training profession.

3. *Individual-Level Factors:*

*Conceptual Definition:* Micro level examination of individuals' work-family conflict, work-family enrichment, professional identity, gender, family status, marital status, years of experience, race, education, and age.

*Operational Definition:* Total scores on the work-family conflict, work-family enrichment, and professional identity and values scales as well as individual demographic variables.

4. *Organizational-Level Factors:*

*Conceptual Definition:* Macro level examination of individuals' employment setting, organizational structure, average number of hours worked per week, work-time control, perceived organizational family support, and perceived supervisory family support

*Operational Definition:* Total scores on the work-time control, perceived organizational family support, and perceived supervisory family support scales as well as individual demographic information

5. *Sociocultural-Level Factors:*

*Conceptual Definition:* Meso level examination of individuals' attitudes towards women

*Operational Definition:* Total scores on the attitude towards women scale.

6. *National Collegiate Athletic Association (NCAA):* A group of colleges and universities in the United States and territories separated into three divisions based on student athlete financial-aid awards, institution size, and number of intercollegiate athletic teams.

7. *National Association of Intercollegiate Athletics (NAIA):* An intercollegiate athletic association that organizes college and university athletic programs among smaller institutions primarily across the United States.

8. *Professional Identity:* A process by which an individual reaches an understanding of their own self concept in conjunction with their profession. Identity in relation to an individual's profession includes the ability to articulate their role as a professional and their own professional philosophy.

9. Traditional Gender Ideology: Traditional gender role ideologies stress the value of distinct roles for men and women. Individuals with a traditional gender role ideology believe that men satisfy their family roles via breadwinning activities and women fulfil their roles through homemaker, nurturing, and parenting activities.
10. Egalitarian Gender Ideology: Individuals with egalitarian gender role ideologies advocate and respect men's and women's equal and shared breadwinning and nurturing roles.
11. National Athletic Trainers' Association: The National Athletic Trainers' Association (NATA) is the professional membership association for certified athletic trainers, athletic training students, and others who encourage and support the athletic training profession. Founded in 1950, the NATA has grown to more than 35,000 members worldwide today.
12. Certified Athletic Trainer: A Certified Athletic Trainer as defined by the Board of Certification (BOC), Inc. The individual is in good standing with the BOC and currently employed in a NCAA or NAIA collegiate institution as a fulltime athletic training faculty member working primarily in the field of athletic training.

### **Limitations and Assumptions**

1. The use of an online survey technique has the potential to influence a potential participant's decision to participate in the study. As a result, the results of this study can only be generalized to individuals who are comfortable with and willing to participate in on-line data collection

2. Due to the time demands required of participating in this study it is possible that those ATs who chose to participate may have higher professional commitment or less work-life conflict than those who chose not to participate.
3. The results from this study should not be generalized to populations other than athletic trainers who are members of the NATA and are employed in the college/university setting at either an NCAA Division I, II, III, or NAIA institution.
4. A portion of the research relied on the participant's ability to accurately predict their career intentions into the future. As a result of the predictive nature, there was the potential for the participant's predicted intentions to impact their actual intentions.
5. It was assumed that participants responded accurately and honestly to all questions posed.



## CHAPTER II

### LITERATURE REVIEW

The purpose of this review is to: 1) discuss current issues related to retention and attrition within athletic training, 2) summarize the current available literature regarding the work-life interface, 3) explain the concepts of job satisfaction and career intentions, 4) examine the importance of a multilevel examination to better understand the work-life interface within athletic training, and 5) describe and relate distinct multilevel measures to the work-life interface.

#### **Retention and Attrition within Athletic Training**

Employee turnover is a natural and inevitable experience within the American workforce, nevertheless a high rate of voluntary employee departure becomes troublesome because it can negatively influence many aspects of the organization.<sup>32</sup> High employee attrition increases expenses for the organization and has a negative impact on overall employee morale. There are considerable costs correlated with an employee quitting. These costs include lost productivity on the part of the departing employee which include decreased productivity while their attention is averted to searching for a job, lost labor during the period between the time the employee leaves and a replacement is brought in, and reduced productivity of the new hire while learning their new role within the organization. There are also recruiting costs absorbed in hiring a replacement, and probable decreased productivity of co-workers who need to fill in for the departing individual as well as spend time mentoring the replacement. Estimates of these direct costs range from 90% to 200% of the departing employee's salary.<sup>33</sup>

Recently, theory and research examining retention and attrition has focused less on the direct costs of replacement, instead directing attention to the loss of human capital caused by turnover.<sup>34,35</sup> Human capital includes both “general” human capital that can be easily transferred across jobs or organizations and “specific” human capital, which encompasses formal training and implicit knowledge that is more often than not unique to a particular working environment. Specific human capital refers more specifically to an investment, made by both the employee and the organization, in learning the culture and norms of the employing organization. Dess and Shaw<sup>36</sup> also included the “social” capital costs of turnover. The departure of key employees may have a significant and crippling impact on a wide range of interdependent groups within organizations that are typified by valuable social networks.

Retention has been studied extensively in other healthcare fields such as nursing<sup>6,37-39</sup> as well as in the athletic realm among collegiate coaches.<sup>40,41</sup> Within allied healthcare, professional turnover has the potential to negatively affect patient care and organizational effectiveness.<sup>32</sup> Capel<sup>2</sup> first studied retention of athletic trainers in the 1990s. The subject of retention and attrition among ATs, which is of great concern in the field of athletic training, is an objectively well researched topic,<sup>4,10,42,43</sup> specifically because a reduction in professionals is coinciding with a time of serious need for clinicians.<sup>4</sup> A recent study by Kahanov and Eberman<sup>4</sup> identified a decline in the athletic training labor force among both male and female athletic trainers in their late 20s and early 30s. They reported that despite the fact that females accounted for 42.9 percent of their sample population, they composed the majority of the athletic training population between the ages 22 and 28 and then drastically declined between ages 28 and 35.

They also reported that the male population within their sample remained more constant between the ages of 27 and 42 and showed a shift in the male population from the clinical and college settings to the secondary school setting. This indicates that male athletic trainers change occupational settings in their middle to late 40s from the clinical or college to the secondary school setting.

Research within athletic training has suggested that organizational retention strategies should include more work schedule autonomy, enhanced peer and co-worker support, supervisor support, flexible work practices, and enhanced communication.<sup>42,44-47</sup> Additionally, Kahanov, Eberman, and Juzeszyn<sup>48</sup> found that athletic trainers who had left the profession were driven by both intrinsic and extrinsic factors. Their data suggested that items of burnout consistently contributed to leaving the athletic training profession and that employment factors such as role overload, lack of administrative support, and travel demands also contributed to leaving the profession. While these retention policies and attrition antecedents are gender neutral there is some indication that there may also be gender differences in regards to retention strategies. Goodman et al.<sup>29</sup> found that female athletic trainers were more likely to remain in the profession because they enjoyed it. In contrast, Mazerolle, Goodman, and Pitney<sup>49</sup> found that males displayed a competitive nature and remained in the profession for the opportunity to work with the athletes because they found it rewarding.

### **Work-Life Interface**

The work–life interface is the intersection of work and private life. There are many aspects of one's personal life that can overlap with work including family, recreation, and health. It is important to understand that the work-life interface is

bidirectional meaning that work can interfere with private life, and private life can interfere with work. This interface can be adverse in nature (work-life conflict) or it can be advantageous (work-life enrichment).

When viewing the work-life interface from a conflict perspective, role theory predicts that the multiple roles individuals fill as workers and family members (child, parent, spouse or partner) are in conflict with each other due to the limited amount of time and resources they have to spend on each role. Essentially, the time and energy spent in one role imposes time and energy away from the other roles. Role theory also predicts that the consequences of work-life conflict may include decreased marital or job satisfaction, reduced job performance, and intent to leave one's profession.<sup>50-53</sup> Athletic trainers, along with other professionals working in the sport industry are at risk for work-life imbalance. A successful career in sport habitually necessitates long nontraditional hours, which can make achieving a balance between work and family problematic. These challenges in finding balance between work and family is evident in coaches.<sup>40,54-57</sup> and sports information professionals.<sup>58</sup> Absence of time for family or personal commitments secondary to an inability to balance work and home life has been linked to those in the athletic industry<sup>2,10,11,55</sup>. The literature has identified insufficient staffing, long work hours, travel, lack of control over work schedule, and work overload as characteristics associated with WLB conflicts<sup>27,59,60</sup>. Three factors that specifically impact the quality-of-life of athletic trainers were highlighted in a 2006 commentary;<sup>61</sup> 1) time, 2) locus of control, and 3) staffing patterns. The reality for athletic trainers is that they do not work the traditional 9 to 5 or 40 hours per week schedule. The reality is that many athletic trainers might work 9 to 10 hour days 6 days a week during their in-

season medical coverage. This gives them very little control over their own time because their schedules revolve around timetables implemented by coaches. Additionally, athletic trainers are often overworked due to inadequate staffing.

In 1997 Frone, Yardley, and Markel<sup>62</sup> developed an integrative model of the work-life interface that made an explicit effort to model reciprocal relations between work and personal life. Following suit, Parasuraman and Greenhaus<sup>63</sup> called for an examination of the benefits of multiple role engagement to present a more balanced overview of the interface. Consequently there have been researchers who have examined the positive interactions between work and personal roles,<sup>17,18,64</sup> utilizing several different terms including enhancement, positive spillover, and facilitation. In 2006, Greenhaus and Powell defined work-life enrichment as “the extent to which experiences in one role improves the quality of life in the other role” (p. 73).<sup>17</sup> This definition offers a broad conceptualization of the positive side of the work-life interface. Essentially, if an individual participates in multiple roles and is able to appreciate the complimentary nature of both, they will experience more positive outcomes and will gain valuable resources to assist in their multiple roles.<sup>17,18</sup>

The theoretical framework for work-life enrichment focuses on the generation and applications of resources gained through participating in work and life roles that result in improved performance or positive affect in another role.<sup>65</sup> The theory of role accumulation<sup>66</sup> can be used to explain why individuals may choose to partake in multiple roles. According to the theory of role accumulation individuals receive various rewards by participating in multiple domains. These may include; greater role privilege, greater status enhancement, lower strain in one role due to a buffering effect from

another role, and personality enrichment.<sup>66</sup> Building off of the theory of role accumulation, Marks<sup>67</sup> argued with his expansionist approach that some roles may produce a positive effect in the form of enhanced energy for an alternative role. Individuals are able to manage work and life demands more successfully due to a generation of resources in multiple roles.

The positive consequences associated with work-life enrichment can be categorized into three distinct categories: 1) work-related, 2) non work-related, and 3) health related.<sup>68</sup> Work-related factors are those that consider the effect of enrichment on job and workplace factors such as affective commitment, turnover intentions and job satisfaction. Non work-related factors consider the effect of enrichment on family and other non-work items such as life and family satisfaction. Health-related factors consist of both mental and physical health. Greenhaus and Powell<sup>17</sup> explain how a parent who has strong time management skills as a result of parenting creates more positive emotions at home which transfers to more positive emotions at work. Conversely, resources acquired at work, such as patience or self-esteem which may result in better performance at work transfers to more positive affect in the life domain. In either case, individuals are experiencing positive emotions about their work.

Social exchange theory,<sup>69</sup> which has been applied to the employee-employer relationship, can be used to explain the positive enrichment relationships. Using this theory, Rhoades and Eisenberg<sup>70</sup> reported that if advantageous treatment is perceived by one group, the other reciprocates, which leads to positive outcomes for both. This notion can be applied to the work-life interface. If employees perceive that the organizations they work for are helping them balance their work and life roles, they are

likely to feel supported by their organization.<sup>70</sup> In return an employee feels obligated to reciprocate toward their organization in the form of more favorable attitudes towards their job and organization.<sup>71</sup> According to social exchange theory, if the work role is perceived by the individual as providing affect to help in the life role, then the employee is most likely to reciprocate toward their work role as this is viewed as the domain providing the benefit.<sup>72</sup>

In regards to non-work-related outcomes, several empirical studies have demonstrated the positive impact enrichment can have on an individual's life outside of work. Greenhaus and Powell<sup>17</sup> explain that resources developed at home, which make an individual more satisfied with their life roles, may also positively impact their work roles. For example, coping skills developed in one's personal role will enhance that individual's performance at home and in turn strengthen that individual's positive affect at work. In their meta-analysis, McNall, Nicklin, and Masuda<sup>68</sup> reported that enrichment is positively related to family and life satisfaction. Specifically, if employees believed that their family was beneficial to their career they in turn felt higher levels of family and life satisfaction, which is explained by social exchange theory. .

Health-outcomes are evident in research showing that enrichment can generate resources that are essential in coping with stress.<sup>17</sup> Conservation of resources (COR) theory<sup>73</sup> may help explain how participation in multiple roles can buffer against the negative effects of one role on the other. According to COR theory, people who have resources are less likely to face stressful situations that negatively impact their physical and mental well-being.<sup>73</sup> Individuals who have greater resources are more capable of solving problems and are less likely to be impacted by stress and stressful

circumstances.<sup>73</sup> In accordance with this, Williams et al.<sup>74</sup> reported that greater enrichment resulted in better physical health. McNall, Nicklin, and Masuda<sup>68</sup> reported that work-life enrichment was positively linked to physical and mental health and suggested this was because these constructs encompass both work and life domains.

## **Job Satisfaction and Career Intentions**

### ***Job Satisfaction:***

Assessing job satisfaction is one method social psychologists have used in an attempt to explain the interactions of employees and the organizations and professions in which they work. Job satisfaction has been defined as the degree to which individuals like their job.<sup>7</sup> The simple definition of job satisfaction does not actually describe how or why an individual may be satisfied with their job. Job satisfaction is a highly complex construct involving numerous components creating a fundamental problem when examining it.<sup>37</sup> Despite the complexity of job satisfaction as a construct, the literature is saturated with examinations of job satisfaction and its related factors.<sup>7,28,75-81</sup> Job satisfaction is a concept with multiple definitions and variations.<sup>81</sup> McKenna<sup>82</sup> suggested that an individual's attitude to how well personal expectations matched actual outcomes was a more robust definition, though this too only described the components of job satisfaction. More comprehensive definitions should involve a combination of affective and cognitive reactions to what an individual employee wants to receive compared to what is actually provided by their job and organization.<sup>83</sup> A more robust definition of job satisfaction presented by Terranova,<sup>84</sup> derived from the works of Spector<sup>7</sup> and Cranny et al.<sup>83</sup> would be, the degree to which people like their jobs and consists of a perceptual



component which evaluates whether one's job is meeting one's needs and an affective component which consists of an individual's feeling of satisfaction concerning their job.

Issues related to job satisfaction are not isolated to the athletic training profession, however the nature of individual professions is what influences the degree of satisfaction. An employee's job satisfaction may be impacted in a positive or negative way based on numerous factors. For example, employer feedback delivered in a prompt manner tends to increase job satisfaction,<sup>85</sup> while work-life conflict tends to decrease job satisfaction.<sup>61</sup> Other factors, such as salary have been shown to have either a negative<sup>86</sup> or positive<sup>87</sup> influence on job satisfaction depending on the perceptions of the employee. A meta-analysis within nursing suggested there are three main variables that impact job satisfaction: 1) economic (pay), 2) structural (work environment and culture), 3) and psychological (workforce demographics).<sup>88</sup> Job satisfaction is a well-documented facilitator of organizational and professional commitment,<sup>89,90</sup> especially in the nursing and healthcare field. Job satisfaction has been shown to be the main predictor of intention to leave a profession or organization.<sup>6,37</sup> A person with higher job satisfaction is less likely to leave a profession compared to an individual with lower job satisfaction.<sup>6</sup> Terranova and Henning<sup>8</sup> found a strong negative correlation between various facets of job satisfaction and intention to leave athletic training.

### ***Career Intentions***

An intention is an aim that guides an action, therefore career intentions are the career objectives of an individual. Examining career intentions provides an indication of whether an employee will remain in their current position, look for another position within the same profession, or depart the profession entirely. It is important to remember

that career intentions are an examination of potential future behavior and cannot represent actual turnover or attrition. There is however an established link between job satisfaction and intention to leave. Meta-analysis has shown a significant negative relationship between job satisfaction and intention to leave.<sup>5</sup> The results also demonstrated that age and tenure were significant moderators for intention to leave as employees with fewer than 10 years of tenure and younger employees had significantly higher intentions to leave.<sup>5</sup> Young personnel with high intention to leave has the capacity to greatly impede the growth of an organization or profession.<sup>91</sup> Carmeli and Weisberg<sup>92</sup> found that intentions to leave were significantly affected by both extrinsic and intrinsic factors of job satisfaction.

The literature terms intention to leave as the behavioral intention of an individual to leave a profession or organization of their own accord.<sup>6,37</sup> Intention to leave has also been specified as a major predictor for the terminal action of turnover.<sup>6</sup> Turnover is often viewed from a negative perspective at both the occupational and organizational levels.<sup>93</sup> Understanding the career intentions of an individual to leave an organization or occupation may potentially lower turnover rates.<sup>91</sup> Occupational and organizational are the main types of turnover noted in the literature. While both types of turnover involve the movement of employees they differ in where the movements occur. Occupational turnover is movement from one profession to another<sup>2</sup> whereas organizational turnover is movement within an organization or profession.<sup>6,37</sup> Both occupational and organizational turnover have the potential for negative effects such as financial difficulties<sup>5</sup> or worker shortages.<sup>94</sup> In addition, both types of turnover may result in increased workload or responsibilities for the remaining staff,<sup>95</sup> possible elimination of

positions that are not filled,<sup>96</sup> and a cascade effect that may stimulate the turnover of other employees.<sup>97</sup> An employee who had no previous intention to depart from their organization may now consider it following a co-worker's departure. There is some literature that suggests that employee turnover may have some positive benefits, including a possibility for change and progress to occur which may improve the overall effectiveness of the organization.<sup>98</sup> The belief is that turnover helps spread the ideas and skills throughout a profession to broaden the base of knowledge<sup>95</sup> and avoid 'groupthink' where similar ideas are constantly being recycled throughout the same organization.<sup>99</sup> Overall, the literature seems to support the notion of more negative than positive outcomes associated with turnover.

### **The Importance of Multilevel Examination**

The simplest argument for the use of multilevel modeling techniques is that much of what we want to study regarding the work-life interface is multilevel in nature. Therefore we should use analytic techniques that are also multilevel. A failure to study multilevel systems through a multi-dimensional lens may result in several serious problems. Ecological fallacy occurs when relationships observed in groups are assumed to hold for individuals.<sup>100</sup> It is also possible to make the error of collecting data from individuals and then aggregate the data to gain insight into the groups to which those individuals belong, known as atomistic fallacy. This occurs when interpretations about groups are erroneously drawn from individual level information.<sup>101</sup> These types of fallacies occur when relationships at one particular level are inappropriately assumed to occur at other levels in the same fashion. It therefore is essential to examine the work-

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

***Individual Factors (Micro):*** The underlying basis for examining the work-life interface from an individual approach is based on the rational policy model<sup>102</sup> and scarcity theory.<sup>17</sup> According to the rational policy model, work-family conflict is a product of the choices individuals make in an attempt to minimize cost and maximize satisfaction in the pursuit of multiple goals. Scarcity theory assumes that resources are limited and that an individual must constantly choose between their roles. Greenhaus and Powell<sup>17</sup> found that benefits in one role (i.e. work) are usually achieved at the expense of another role (i.e. family) and vice versa. Scarcity theory is apparent in the individual approach as Carlson and Kacmar<sup>51</sup> found that job involvement is positively associated with job satisfaction and positively associated with work interference with family. According to scarcity theory, while individual's desire to have satisfaction at work and at home the choices they make that increase work satisfaction almost always have costs in the home realm. Based on these theories and underlying assumptions, an individual approach explains how people find their own strategies in their work and family roles in order to maximize satisfaction and success in each realm. Individual factors are centered on differences among individuals that lead them to make choices and consequently experience different outcomes.

Individual level factors include personality, values, family structure, and gender. Research indicates that individuals differ in their experiences of work-life conflict and their ability to cope due to differences in individual factors in a given context.<sup>51,103,104</sup> Individual level differences can be especially noticeable when examining people in the

same or similar occupations. For example, athletic training jobs can be similar in the types of role strain faced by employees (lack of control over schedules, hours and travel, perceived inadequate compensations, and overall job demands) and yet a recent study by Naugle et al.<sup>105</sup> demonstrated that women reported higher incidence of burnout than their male counterparts. This is despite their finding that the male athletic trainers worked more hours on average than the female athletic trainers in the study. In several studies examining retention and work-life balance women athletic trainers have identified the time commitment of the profession, particularly in the collegiate setting as problematic, especially when trying to balance motherhood and their job responsibilities.<sup>11,29,30,106</sup>

**Organizational Factors (Meso):** While individual factors may impact choices, Allison<sup>102</sup> argued that those choices and subsequent actions are shaped and perhaps rooted in organizational policies and environments that engender behaviors that influence organizational and individual actions. The organizational approach to the work-life interface examines characteristics of the workplace and their relationship to individual behavior. Essentially, researchers use this approach to examine the ways organizational and occupational structures influence individual choice and behavior.<sup>107</sup> Organizational elements of the workplace impacts individuals beyond their individual desires and values and examination of these organizational factors enables a top-down perspective.<sup>27</sup>

The organizational approach can be divided into three main areas of investigation: 1) job pressure/stress, 2) work hours and schedule, and 3) work culture.<sup>27</sup> Organizational factors include perceptions of supervisor support, organizational culture,

reporting structures and hierarchy, job demands, work schedules and hours, flexible work practices, and perceived family friendly environments. Organizational factors have been linked to experiences of work-life conflict and subsequently intentions to depart, particularly in the sport industry.<sup>11,47,108</sup> Long and irregular work hours, travel, and time spent at work (ie notion of face time in the office) have been reported as major facilitators of work-life conflict for the coach,<sup>108</sup> comparable antecedents for physicians<sup>109</sup> and athletic trainers.<sup>11,42</sup> In fact, long work hours have been found to negatively affect a female athletic trainer's professional commitment, where they often change employment settings or leave the profession in order to achieve work-life balance.<sup>10,29,106</sup> Non-supportive work cultures can create an environment in which an individual who desires balance will increase their job search intentions,<sup>110</sup> highlighting the interplay between organizational and individual factors. While work characteristics are often examined in relation to conflict, a family friendly or family friendly organizational culture decreases reports of work-family conflict.<sup>111</sup>

***Sociocultural Factors (Macro):*** An examination of sociocultural factors enables researchers to assess how social meanings, norms, and values impact the work-life interface. It is important to remember that work and family do not exist in a vacuum of individual or organizational reality, but rather are embedded in a larger system of social meanings that impact experiences and interpretation of the work-life interface.<sup>27</sup> The inclusion of sociocultural factors in Dixon and Bruening's model<sup>27</sup> highlights additional important dynamics in perception of work-life conflict and gives credence to many who argue that preference alone does not dictate female career trajectories and reminds us

that in order to fully understand the work-life interface there must be an appreciation of gender ideology.

Sociocultural factors include gender ideology, and cultural norms and expectations. Sociocultural level factors examine norms and values associated with work and family. Due to existing societal driven gender norms, women typically have a more difficult time maintaining both work and family responsibilities and they report that they must constantly prove their worthiness.<sup>40</sup> Additionally, women who have children and work, regardless of marital status outside the home frequently experience feelings of guilt, self-doubt, and degradation because they feel anomalous. It is women, more often than men who interrupt their careers to have children, to work part time, or to have to leave work to take care of sick children. This slows their own career progress and is potentially detrimental to their earning potential. Social norms not only make women feel that they have to choose work or family but also impart a negative social connotation in choosing work over family.

Within coaching, Dixon and Bruening<sup>54</sup> delineated three distinct barriers presented by conventional gender ideology for females. The first is that opportunities to enter and remain in a male dominated profession are limited. Second, women more often than men have heightened responsibilities for family. It is women who are more likely to disrupt their careers for family, slowing their own career progress and theoretically their earning potential.<sup>112</sup> Lastly, traditional gender norms can create feelings of stress and guilt among women who feel pressured to take on more of a caregiver role in their personal lives.<sup>113</sup> While these barriers were developed with female coaches in mind, it is reasonable to assume that these barriers would also hold true for

females in other athletic professions. Within athletic training the duties and skills required are independent of gender. Acosta<sup>114</sup> suggests that the overall low representation of female athletic trainers at the collegiate level leaves open the question of non-skill based selection processes.

### **Multilevel Measures**

Kozlowski and Chao<sup>115</sup> describe that the methodology used to investigate emergence in organizational research can be qualitative or quantitative. Qualitative research provides an excellent window for multilevel research due to its observational flexibility which allows for theoretically rich accounts from participants. The vast majority of direct empirical research on emergence in organizational science is qualitative.<sup>115</sup> Examinations of emergence from a multilevel perspective utilizing quantitative research is limited. In order to examine factors at multiple levels from a quantitative methodology, validated surveys need to be carefully selected in order to ensure a multilevel assessment and a theoretical rationale for how the phenomenon at the lower level combines with to manifest at the higher levels. Additionally, for a study within athletic training it is important that selected surveys measure specific factors at the individual level of analysis as opposed to a departmental level of analysis. This is because we want to make inferences from individuals and because athletic training departments within the collegiate setting are not homogenous. Therefore any inferences we made at the departmental level should not be aggregated to explain findings in other departments. Below, several constructs (non-demographical) will be discussed in an effort to show their importance in a multilevel assessment. Work-family conflict, professional identity and values, and work-family enrichment can be used to measure



individual level factors. In addition age, sex, race/ethnicity, highest level of education, years of experience, marital status, and family status are all individual level factors that can be examined. Work time control, perceived organizational family support, and perceived supervisory family support can be used to measure organizational level factors. The demographic variables that can be used to examine organizational factors include NCAA Division of employment, organizational reporting structure, hours worked per week, contract length, and NATA district of employment. Sociocultural level factors can be examined by measuring attitudes toward women.

### **Individual-Level Factors:**

#### ***Work-Family Conflict:***

Work-family conflict is a kind of interrole conflict where the demands of functioning in the two domains of work and family are incompatible in some aspect.<sup>116</sup> Work-family conflict originates from the emotional and behavioral demands of work and non-work roles, such that immersion in one role is made more difficult by participation in the other.<sup>117</sup> Inevitably, the more we fight for work-life balance, the more work-family conflict occurs. Work-family conflict is observed when the needs of a job interferes with the demands of the family.<sup>7</sup> Subsequently, today's increasing involvement of women in the workforce in addition to a greater number of dual earning couples has led to more work-family conflicts. The manifestation of work-family conflict can lead to strain between work and family roles, which can become a stressor and may diminish psychological and physical well-being.<sup>28</sup>

Existing literature across disciplines is consistent in demonstrating a correlation between increased work-family conflict and decreased job satisfaction.<sup>10,28,50,118</sup>

According to the literature, roles and responsibilities that add to amassed work-family conflict are job expectations and obligations, emotional involvement in one's job, inflexible requirements, and high job demands.<sup>28</sup> Employees subjected to stressor agents incur increased costs for their organization associated with inefficiency, absenteeism, turnover and reduced job satisfaction and productivity.<sup>28</sup> Other negative health effects of work-family conflict discovered by Pisarski *et al.*<sup>117</sup> are anxiety, depression, burnout, somatic complaints, raised cholesterol levels, and substance abuse.

While the literature has traditionally focused on the role of women in the workplace who attempt to balance both family and professional responsibilities, the conflict is not an isolated female issue.<sup>46,49</sup> Work-family conflict for athletic trainers may arise from a number of sources including a poor locus of control or a lack of time<sup>61</sup> as many athletic trainers report working 9-10 hour days, with 60-70 hours per week.<sup>61</sup> These reported long work limits the amount of time available for family and personal interests. If an individual values their time with family and the time they have available to be with their family is reduced due to their required work hours, there is a high probability for conflict.

### ***Work-Family Enrichment:***

As previously discussed, the theoretical framework for work-family enrichment relates to the creation and application of resources gained through involvement in work and personal life roles. When these resources are utilized in one role the results can be improved performance or enhanced mood in the other role.<sup>65</sup> There are three primary components that shape the theoretical framework of work-life enrichment: 1) the

directions and dimensions of work-family enrichment, 2) resources created in work and family roles, and 3) the paths that encourage work-family enrichment in each role.<sup>17</sup>

Work-family enrichment is multidimensional, meaning that resource gains that augment performance in the work domain can improve performance in the family domain and vice versa.<sup>65</sup> It is specifically interested in the resources gained through experiences in one role (work or family) that are transferred, increasing performance or resulting in positive affect in the other role. A resource is a skill or ability that may be drawn on when needed to help cope with a challenging situation or to solve a problem.<sup>17</sup> Greenhaus and Powell<sup>17</sup> identified five kinds of resources that have the capability to promote work-family enrichment: 1) skills (cognitive, multitasking abilities, and task-related interpersonal skills) and perspectives (respecting differences when handling a situation), 2) psychological (self-efficacy and self-esteem) and physical resources (mental sharpness and stamina), 3) social-capital resources (interpersonal relationships), 4) flexibility (ability to determine pace, location, and timing of when role requirements are met), and 5) material resources (money and gifts). These resources are able to promote work-family enrichment via two different paths: instrumental and affective.<sup>17</sup> In the instrumental path, employees believe their family roles have provided resources necessary to handle co-workers or have increased their ability to perform their job.<sup>65</sup> Resource gains at work also have a direct effect on the family role resulting in enhanced performance. The affective path indirectly promotes work-family enrichment by influencing moods and emotions resulting from participation.<sup>17,65</sup> As individuals gain resources through continued participation in one role their emotional state or mood increases which can aid their performance in the other role.

### ***Professional Identity and Values:***

Nugent and Jones<sup>119</sup> defined professional identity as the application of training and personal characteristics in the professional setting. It is the understanding an individual reaches regarding their professional role in conjunction with their own self-concept. Identity in relation to a professional role includes the ability to articulate a professional philosophy and an approach with others within and outside of the field.<sup>21,22</sup> Professional identity stems from interactions with other professionals which allows an individual to gain insight into professional practices and develop their individual skills and professional values.<sup>120</sup> Individuals with greater professional identities are able to verbalize their role as a professional, their own professional philosophy, and their own approach with others, both inside and outside of their field.<sup>21-23</sup> Successful professional identity construction has been shown to positively correlate with career success.<sup>24,25</sup>

Professional identity relates to many facets of a profession, including professional practices, philosophies and beliefs, ethics, and the necessities for success within the profession. The literature related to professional identity development has shown that cultural beliefs such as those involving gender norms and the intersection of those beliefs with one's role in their profession has substantial impact on personal identity development.<sup>22,121,122</sup> Colley et al.<sup>22</sup> found that if personal values differ with expectations of successful participation in a profession, conflicts may arise as the individual attempts to define their own place within their chosen profession.

### ***Organizational-Level Factors:***

#### ***Work-Time Control:***

Worktime control is an individual's independence related to total number of work hours, starting and finishing times of work, breaks, days off, and vacations. There is research that indicates worktime control may alleviate the negative effect of worktime demands on health and work-life balance.<sup>123-126</sup> Staines and Pleck<sup>127</sup> maintained that increased work hours resulted in an increased work-family conflict and when workers felt in control of their work hours there was decreased work-family conflict. Geurts et al.<sup>126</sup> found that worktime control may be an important tool to help individuals maintain work-life balance and they cautioned against working very long days. The relationship between work hours and conflict can be attributed to the increased difficulty in arranging schedules outside of work, particularly related to childrearing. When work hours are constantly changing it makes it very difficult for the employee to establish a routine. Similar to other jobs within sport, the structure of an athletic trainer's work schedule is highly salient and require working at night, during the weekend, long hours, and may often require travel.

Ala-Mursula and colleagues<sup>123</sup> created a work-time control survey in 2005 as a way to determine if work stress or sickness absence is related to the amount of control employees have over their working time. Their survey utilized a 5-point Likert scale (very little to very much) to determine how much individuals are able to influence various aspects of their working time including length of workday, starting and ending times of the work day, taking of breaks during the workday, and scheduling. They found that good control over working times reduced the adverse effects of work stress on sickness absence particularly among female employees. Individuals without a choice or input toward setting their work schedules or hours may be more predisposed to work-

family conflict.<sup>128</sup> Providing employees with control over their worktime is likely to save organizations considerable financial resources through fewer sickness absences. In relation to reports in the athletic training literature it is possible that more autonomy over work scheduling could lead to increased job satisfaction, decreased burnout, and enhanced work-life balance.

***Perceived Organizational Family Support and Supervisor Family Support:***

Organizational family support is a broad construct that includes all of the work-family policies that are offered by an organization which conveys a message related the organization's interest in helping their workers attain balance between their work and personal roles.<sup>129</sup> Galinsky et al.<sup>130</sup> defined family friendliness as an organization's overall responsiveness to its employees' family and personal needs. A large component of organizational family support is social support, which has been defined as the resources available from others that assist an individual in managing stress.<sup>131</sup> Social support is an important resource for dealing with work-family conflict because it can moderate the strain associated with the stressors of multiple roles.<sup>132</sup> Greenhaus and Parasuraman<sup>118</sup> suggest strategies to reduce work-life conflict which include providing greater flexibility, accurate information, and support services. These strategies parallel the three categories of social support: 1) instrumental (providing aid and programs), 2) informational (communicating about available resources), and 3) emotional (acknowledging and employee's non-work needs).<sup>133</sup> While social support is typically thought of as being provided by friends and family, individuals will increasingly seek and expect social support from the work domain.<sup>134</sup>

The literature supports that simply offering work-life programs does not necessarily mean that employees within an organization find them supportive of their work-life needs.<sup>135</sup> While 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. Allen<sup>135</sup> demonstrated that supervisor support had direct and indirect impact on employee attitudes such as work-family conflict, organizational commitment, job satisfaction, and turnover intention. Additionally, Goff et al.<sup>136</sup> found that supervisory support was associated with decreased work-life conflict and absenteeism. Because employees seem to differentiate the support they receive from their organization and the support they receive from their supervisor it is important to measure both.<sup>137</sup>

### **Sociocultural-Level Factors:**

#### ***Attitude towards Women:***

Gender role ideology is one term researchers use to depict individuals' attitudes regarding the appropriate roles, responsibilities, and rights of men and women. An understanding of individuals' gender role ideologies may help explain how work and family are viewed in a larger social context. Both individual behavior and organizational policies and structure can be influenced by gender role ideologies. Traditional gender role ideologies emphasize the value of distinctive roles for men and women. Individuals with a traditional gender role ideology believe that men fulfill their family roles via breadwinning activities and women fulfil their roles through homemaker, nurturing, and parenting activities.<sup>138</sup> Contemporary or egalitarian gender role ideologies in contrast advocate and respect men's and women's equal and shared breadwinning and

nurturing roles.<sup>138</sup> Social learning theory,<sup>139</sup> which suggests individuals learn attitudes and behaviors as a result of social interactions with others helps explain how gender role ideologies that are derived from societal norms are passed along generationally. According to Bandura<sup>139</sup> individuals do not possess any inherent behavior patterns at birth apart from reflexes, and consequently learning occurs by observing other people.

Gender roles ideologies matter because an individual's work patterns (paid or unpaid) sometimes conflict with their beliefs regarding the appropriate role for men and women in society.<sup>140</sup> Kulik<sup>141</sup> found that individuals' work behavior sometimes conflicts with their attitudes about gender and when these gender role ideology and work discrepancies occur potential consequences include reduction in well-being and a reduction in feelings of goodness and competence.<sup>142,143</sup> Kroska<sup>140</sup> found that men and women respond to discrepancies between work and gender ideologies differently reporting that women experience gender role ideology discrepancies as role specific stressors whereas men experience them as identity threats and respond with inflated self-characterizations. Kroska<sup>140</sup> concluded that women are at an increased risk for role specific distress and feelings of inaptitude when coping with work and family divisions that are dissimilar from their gender attitudes. These findings help explain why women habitually have a more difficult time upholding both work and family responsibilities and they report that they must regularly "prove their worthiness".<sup>40</sup> Women who have children and work outside the home often experience feelings of guilt, self-doubt, and shame because they feel aberrant.<sup>144,145</sup> It is women, who disrupt their careers to have children, to work part time, or to leave work to take care of sick children. This has been speculated to slow their own career progress and is theoretically unfavorable to their



earning potential.<sup>146,147</sup> Social norms not only make women feel that they have to choose work or family but also impart a negative social connotation in choosing work over family.

## **Conclusion**

The goal of this review was to provide rationale for examining job satisfaction and career intentions of athletic trainers from a multilevel perspective. While a significant amount of literature has highlighted factors related to work-life interface of collegiate athletic trainers from a uni-dimensional perspective there is not currently a multilevel examination that we are aware of. It is important to understand that issues with attrition among athletic trainers are multifactorial and are not solely based on an individual's own preferences and that there is a top-down and bottom-up implication. Athletic trainers, particularly female continue to leave the profession so it becomes imperative to find retention strategies to prevent the negative consequences associated with turnover. Recent membership statistics<sup>148</sup> highlight that new membership may not be offsetting clinician turnover. Therefore it is imperative to attract and produce clinicians, while retaining experienced ones, by establishing a better understanding of the work-life interface and career intentions of athletic trainers.

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## CHAPTER III

### MANUSCRIPT I

#### **Validation of the Professional Identity and Values Scale (PIVS) among an Athletic Trainer Population**

##### **ABSTRACT**

**Context:** Professional identity is process by which an individual achieves an awareness of his/her own self-concept in combination with the profession. Identity in relation to an individual's profession includes the ability to articulate the role as a professional and professional philosophy. Professional identity has been studied extensively in other fields, but there are currently no known professional identity scales validated within the athletic training profession.

**Objective:** To validate the professional identity and values (PIVS) scale among an athletic trainer population

**Design:** Cross-sectional study

**Setting:** Web-based questionnaire

**Patients or Other Participants:** Athletic trainers employed in NCAA Division I, II, III or NAIA colleges or universities (n = 299, 56.5% female, 43.5% male). Average age of participants was 33.6 $\pm$ 8.3 with 10.3 $\pm$ 7.6 years of experience.

**Intervention(s):** A demographic questionnaire and the 32 item PIVS scale.

**Main Outcome Measure(s):** The variables included demographics and the PIVS scale (Professional Orientation and Values subscale (18 items) and the Professional Development subscale (14 items)).

**Results:** Exploratory factor analysis reduced the survey from 32 to 20 items and revealed six factors. Three factors emerged in the professional development subscale emphasizing professional insecurities in early stages, the importance of mentors of intermediate stages, and self-confidence and awareness in later stages of professional development. An additional three factors emerged in the professional orientation and values subscale, 1) patient care and advocacy, 2) professional engagement and collaboration, and 3) personal wellness and values. A Cronbach's alpha of 0.80 indicates good internal consistency.

**Conclusions:** A modified PIVS scale is a valid and reliable measure of professional identity among athletic trainers employed with the collegiate setting.

**Key Words:** Professional development, self-concept

**Word Count:** 268

## **INTRODUCTION**

The purpose of this research is to validate the Professional Identity and Values Scale (PIVS) scale among an athletic training population in order to better understand the values and professional development of practicing athletic trainers. The PIVS developed by Healey<sup>1</sup> is strong in terms of its representativeness of the construct of professional identity of counselors. While both professions fall under the umbrella of allied healthcare, athletic training is unique in its relationship to athletics. Having a clear sense of its own identity is essential for athletic training to advance. Due to similarities between the professional values, definitions, and development of the athletic training and counseling professions, it is appropriate to validate a scale developed among counselors among an athletic training population.

Research regarding professional identity within athletic training is necessary to advance the profession and to determine if clinically practicing athletic trainers are in agreement with the essential philosophies and definitions of the profession. It is important to know if the institutionally valued qualities of the profession are actually being put in to practice. There should be congruence between what athletic training has defined itself to be and how it is actually practiced. The way in which professional identity is defined has the ability to impact how individuals within the profession integrate and form their own professional identities. Although many studies have examined professional identity in other fields, there are currently no known professional identity scales validated within the athletic training profession.

### ***Professional Identity***

Professional identity has been defined as an individual's professional self-concept based on beliefs, values, motives, attributes, and experiences and has been explored significantly in the literature.<sup>2-8</sup> Nugent and Jones<sup>9</sup> defined professional identity as a combination of personal and training characteristics applied within the professional setting. These personal characteristics, or self-concepts are influenced by societal and cultural expectations. Concepts related to professional identity include the values and beliefs of the profession in addition to how an individual chooses to engage within their profession. Professional identity develops over time through interactions with other professionals and gaining insight into professional practices and the development of individual skills and values of the profession.<sup>2</sup> Individuals with higher professional identities are able to articulate their role as a professional, their own professional philosophy, and their own approach with others, both inside and outside of their field.<sup>10-</sup>  
<sup>12</sup> Career success has been shown to positively correlate with successful professional identity construction.<sup>5,8</sup>

The construct of professional identity relates to many aspects of a profession, including professional practices, philosophies and beliefs, ethics, and the requirements for success within the profession. Research on professional identity development has shown that cultural expectations such as those involving gender norms and the intersection of those expectations with one's role in their profession has significant influence on personal identity formation.<sup>11,13,14</sup> Colley et al.<sup>11</sup> found that if personal values contrast with expectations of successful involvement in a profession, conflicts may arise as the individual attempts to define their own place within their chosen profession.



## ***Defining the Counselor and Athletic Training Professions***

Both athletic trainers and counselors are considered healthcare professionals. Healthcare professionals maintain health in humans through the application of evidence-based medicine with the definitive goal of meeting the health needs of individuals and populations.<sup>15,16</sup> They study, diagnose, treat, and prevent human illness, injury, and mental impairments upon completion of rigorous education.<sup>15,16</sup> Professionally, the well-being of patient is the primary concern of any healthcare provider, and all healthcare professionals must comply with federal and state laws. Most healthcare professionals work in hospitals, clinics, or private practice settings. Athletic training, similar to counseling, is a relatively new field that has undertaken many initiatives to advance its status as a health care profession.

The National Athletic Trainer's Association (NATA) has defined an athletic trainer as a "health care professional who collaborates with physicians [and] the services provided...[which] comprise prevention, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions. Athletic trainers work under the direction of physicians, as prescribed by state licensure statutes."<sup>17</sup> This definition matches well with the clinical tasks that are routinely performed by athletic trainers which are classified into five domains: 1) Injury/illness prevention and wellness protection, 2) clinical evaluation and diagnosis, 3) immediate and emergency care, 4) treatment and rehabilitation, and 5) organizational and professional health and well-being. The 2009 role delineation study<sup>18</sup> makes note of the ability of athletic trainers to empower patients in the improvement of their mental and social well-being and task 0506 specifically addresses the need for athletic trainers to be able to support and refer

individuals to address unhealthy lifestyle behaviors. Psychosocial strategies and referral comprise a significant components of the educational competencies of athletic trainers. The 5<sup>th</sup> edition of the athletic training education competencies require athletic training students to be educated in the recognition of individuals with psychosocial disorders and/or mental health emergencies, learn how to integrate appropriate psychosocial techniques into a patient's treatment program in order to enhance adherence, return to play, and overall outcomes, and athletic training students must learn to describe how psychosocial considerations may impact clinical decision making in regards to return to participation.<sup>19</sup> A 2006 study found that athletic trainers were able to accurately identify athlete's depressive symptoms and diagnosis, and need for psychological referral.<sup>20</sup>

Similar to athletic trainers, counselors work with individuals and groups to promote optimum health, though in counseling the primary focus is on mental and emotional wellbeing. These professionals are responsible for developing and implementing treatment plans, collect information about their patients via interviews, observations, or tests, and maintain the confidentiality of records relating to their clients' treatment. Beliefs related to the counseling profession embrace clinical practice from a wellness perspective, advocacy for the profession as well as for patients, community and professional service, and engaging others from a holistic point of view.<sup>1</sup>

### ***Professional Values of Counselors and Athletic Trainers***

The NATA has also established four principles of ethical behavior that should be followed in the practice of athletic training as part of their code of ethics.<sup>21</sup> The first principle states that all members should respect the rights, welfare, and dignity of all by providing competent care, maintaining confidentiality, and avoiding any form of

discrimination against any legally protected class. The second principle states that all members must comply with the laws and regulations that govern the practice of athletic training. Principle three states that all members must maintain and promote high standards in their provisions of services by not misrepresenting their training, and only providing services for which they are qualified through education and are allowed by their practice acts. The fourth principle states that members should not engage in conduct that may be interpreted as a conflict of interest or that reflects poorly on the profession.

Similarly, the American Counseling Association established five core professional values of the counseling profession: 1) Enhancing human development throughout the life span, 2) Honoring diversity and embracing a multicultural approach in support of the worth, dignity, potential, and uniqueness of people within their social and cultural contexts 3) promoting social justice 4) Safeguarding the integrity of the counselor–client relationship, and 5) Practicing in a competent and ethical manner.<sup>22</sup>

### ***Development of Counselors and Athletic Trainers***

An extensive amount of research has examined the professional development of counselors.<sup>10,23-28</sup> The professional identity of counselors encompasses the notion of continuous growth and development,<sup>26</sup> which is a lifelong process.<sup>27</sup> Career development for counselors begins when individuals enter counselor training programs and continues until they retire. Gibson et al.<sup>23</sup> determined that new counselor trainees relied on external references such as professor and textbooks for understanding their professional identity compared to advanced counselor trainees who incorporated more of their own personal attributes into their professional identity. New professionals are

able to move from an external to an internal locus of evaluation from a dependence on experts to a reliance on their own training and experiences.<sup>10,23,28</sup> Moss et al.<sup>26</sup> reported that an integration of the personal and professional self occurs in the later stages of a counselor's career. Developing a professional identity throughout a career does not come without its challenges. Skovholt and Rønnestad<sup>28</sup> reported that counselor trainees experienced anxiety stemming from the ambiguous standards in their training program and Moss et al.<sup>26</sup> found that new counselor professionals struggled with unrealistic expectations of what it meant to be a professional counselor.

When developing her scale, Healey<sup>1</sup> defined the three stages of a counselor's professional development. In the first stage an individual has identified with the profession as a field that seems to fit with their own personal values and needs.<sup>24</sup> While the individual identifies with certain aspects of the professional philosophy, they are unsure how to put these philosophies into practice and are therefore unlikely to feel confident in their role as a professional. Individuals in this stage are more likely to imitate individuals they perceive to be experts. These stages may not be sequential and the time spent in each stage will depend on the individual. Those counselors in Stage 1 may depend on experts in the field to help them define and better understand the profession.<sup>24</sup> In the second stage an individual has likely completed some training in their field and has some experiences working either through internship or employment.<sup>24</sup> Individuals in this stage are more likely to disregard the opinions of others with more experience if the information is in conflict with their own personal beliefs about the profession.<sup>29</sup> The experiences that this individual has been exposed to within their field have provided them with an increased level of comfort. Individuals at this level can

begin to determine their own professional approach. Additionally, individuals in this stage are working on integrating their professional identity into their practice and personal beliefs and may seek to expand their knowledge due to their increased confidence in their professional role, possibly through the mentorship of others within the profession. Personal conflicts may arise in this stage if external expectations are in opposition to their professional identity. Counselors in Stage 2 generally represent individuals who completed an internship or other limited clinical experiences. The final stage represents the point in which the professional has a clear concept of their role as a professional and what they are able to contribute to the field.<sup>24</sup> Individuals in this stage are often involved in professional activities that mirror their personal values. In this stage individuals may still have conflict between external expectations and professional identity, but they have established a way in which they can cope with the pressures.<sup>29</sup> Their professional philosophy becomes an essential part of their personal life and relationship with others. Individuals in this stage will continue to expose themselves to new professional experiences and engage in continuing education and learning opportunities. Counselors in Stage 3 tend to be more actively involved in external professional activities.

While counselors are required to obtain a Master's Degree (though new education requirements will require future athletic trainers to obtain a Master's Degree) both professions need to complete work experience, pass a certification exam, and apply for state licensure. Students in both fields are exposed to professional mentors in their clinical work experience that help shape their professional development. Licensed professionals in both fields must abide by state regulations. Therefore it is appropriate

to use these three developmental stages in an exploratory factor analysis within athletic training.

### ***The Uniqueness of Athletic Training***

What makes athletic training unique to mental health counseling, and many other healthcare professions, is that athletic trainers are providing healthcare within a sports organization. As such, the demands and challenges placed upon athletic trainers are unique in that they must face the challenges of working within a sport organization as well as the challenges associated with patient care (injury prevention and diagnosis, rehabilitation, documenting, ethical behaviors, etc.). A sports organization creates a unique working environment and can be identified by five key elements: 1) social entity, 2) involvement in the sport industry, 3) goal-directed focus, 4) consciously structured activity systems, and 5) identifiable boundary.<sup>30</sup> Working within a sports organization means that athletes are the primary patient population of athletic trainers. Brewer, Van Raalte, and Linder<sup>31</sup> identified a concept known as athletic identity in which an individual identifies with the role of athlete and impacts how they view themselves. Similar to professional identity, athletic identity is developed through the acquisition of skills and social interaction. The benefits of an athletic identity include a salient self-identity, self-confidence, health and fitness, and performance enhancement. The potential risks include emotional difficulties dealing with injuries and difficulty adjusting to the end of an athletic career. The concept of athletic identity creates a unique set of circumstances for the healthcare professional interacting with athletes on a daily basis.

While athletic trainers work in a variety of settings, the majority of NATA members work in either the college/university, professional sports, or secondary

schools, all of which constitute a sports organization.<sup>32</sup> The college/university setting represents the largest job setting of certified NATA members with almost a quarter of certified members employed at a college or university.<sup>32</sup> The college and university settings also creates the perfect storm of unique workplace challenges for the athletic trainer which may include atypical hours, long road trips (extended nights away from home), high pressure to win, supervision of athletic training students, long competition seasons, last minute schedule changes, and organizational structures where supervisors may not be medical professionals.<sup>33-35</sup> While these individual issues may arise in other job settings and professions, you do not see them all in combination as frequently as you do in the college setting. Athletic training as a profession is unique because it is a health care profession functioning within a sport organization. The departmental goals of athletic training often focus on improvement in the health and well-being of their patients, whereas the workplace goals of coaches and sports organizations may focus more on success and profit.

### ***Professional-Identity and Values Scale***

Recently Healey<sup>1</sup> developed a scale known as the Professional Identity and Values Scale (PIVS) that assesses the attitudes, beliefs, and practices regarding counselors' roles within their profession. The PIVS is unique to other professional identity scales because it was constructed based on the qualitative data grounded in professional identity theoretical frameworks and takes in account the voices and personal values of the professional themselves rather than bring solely grounded in the conceptual paradigms developed by experts.

The PIVS is a 32-item measure of professional identity among counselors and was created based on information gathered through a qualitative research process that involved female counseling professionals serving in various professional roles within their field.<sup>1</sup> Healey and Hays<sup>5</sup> demonstrated face and content validity and reported the total subscale score Cronbach's alpha at 0.80. The PIVS consists of two subscales: Professional Orientation and Values (18 questions) and Professional Development (14). The Professional Orientation and Values subscale gauges agreement with beliefs that are commonly held with regard to the counseling profession and were directly assembled from qualitative data collected via interviews and focus groups. Prior preliminary and exploratory factor analysis<sup>5</sup> established five groupings within the Professional Orientation and Values subscale: 1) advocacy and community engagement, 2) holistic, contextual, and relational approach, 3) professional engagement and collaboration, 4) personal wellness, and 5) meaning and values. The Professional Development subscale represents three stages of professional development through which a counselor progresses during identity development: 1) Stage 1: imitation and internalization of expert beliefs, 2) Stage 2: acceptance of inner voice as expert and role exploration, and 3) Stage 3: individualization of professional beliefs. While these three developmental stages were established via research in the counseling field,<sup>24,29</sup> the education and training requirements of both professions are similar as previously explained.

## **METHODS**

### ***Participants***



The participants in this study ( $n = 299$ ) identified as athletic trainers employed in NCAA Division I, II, III or NAIA colleges or universities. Athletic trainers employed in the collegiate/university setting were purposefully chosen as they represent the largest population of NATA members.<sup>32</sup> Additionally, athletic trainers working in the college and university setting have to balance competing, time intensive job duties, which include providing medical care for multiple teams, supervision of students, and management of administrative duties and paperwork.<sup>33,36</sup> Research has shown that over time, the long work hours can lead to experiences of burnout,<sup>37</sup> job dissatisfaction,<sup>38</sup> work-life conflict,<sup>33</sup> and attrition<sup>34</sup> for the athletic trainer employed in the collegiate setting. All participants were currently NATA members. Inclusion criteria consisted of: 1) employment in the college or university setting. Participants were excluded from the study if 1) they were graduate assistant or 2) intern ATs. Our participants were  $33.6 \pm 8.3$  (22-61) years old, with  $10.3 \pm 7.6$  (0.5 – 37) years of experience working as an athletic trainer. They worked  $60 \pm 12.1$  (10-100) hours a week during their “in-season”,  $45.8 \pm 10.6$  (5 – 85) hours a week during their “off-season”, and  $21.3 \pm 16.1$  (0 - 70) hours a week during the summer. The majority of our participants were contracted for 12 months ( $n = 183$ , 61.2%) and on average traveled with  $1.8 \pm 1.4$  (1-13) teams as part of their work responsibilities. Participants identified as male ( $n = 130$ , 43.5%), and female ( $n = 169$ , 56.5%). Participants reported their racial/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%), Multi-Ethnic ( $n = 8$ , 2.7%), and other not specified ( $n = 4$ , 1.3%). Current NATA membership statistics<sup>20</sup> reveal that 54.42% of members are female and 45.43% are male. The majority of NATA members are White

not of Hispanic origin (80.81%) followed by Hispanic (4.56%), Black (3.69%), Asian or Pacific Islander (3.48%), and Multi-Ethnic (1.66%). A comparison of the demographic information of our participants and NATA membership statistics can be found in Table 1. Our sample represented diversity in demographic variables as compared to NATA membership statistics. The majority of our participants were single ( $n = 161$ , 53.8%) and did not have children ( $n = 204$ , 41.5%). All of our participants who reported having children also self-reported being married. Additional demographic information can be found in Table 2.

### ***Procedure***

After institutional review board approval, we contacted the NATA to provide a list of athletic trainers currently employed in the college or university setting. The NATA provided us with a list of 2000 email addresses. Of the 2000 emails that we were provided, 1653 were viable (either email addresses were inactive or individuals replied to let us know they did not meet inclusion criteria). Initial email recruitment, which consisted of an overview of the study as well as a link to the online survey (Qualtrics), was sent out in the middle of November, 2015. Subsequently two email reminders were sent out to all participants asking them to complete the survey if they had not yet done so and to thank them for their participation if they had already completed the online survey. The first reminder went out two weeks after initial recruitment (the end of November, 2015) and the second email reminder went out four weeks after the initial recruitment (middle of December, 2015). Of the 1653 viable emails that were sent out to participants, 487 surveys were started (29.4% response rate) and 299 surveys were finished (39% dropout rate). The online survey included demographic questions, nine

Likert scale Surveys, and open ended questions. This study was part of a larger study that aimed to examine the career intentions of collegiate athletic trainers from a multilevel perspective. For the purposes of this study only demographic information and responses to the Professional Identity and Values Scale (PIVS)<sup>5</sup> were analyzed (open-ended questions and the other eight Likert scale surveys were not assessed).

### ***Measures***

*Demographic Form.* The 22-item demographic form included information of general demographics such as age, gender, marital status, sexual orientation, family status, race/ethnicity, and highest level of education. Additionally the form included demographic information specifically related to the athletic training profession including NATA district, average number of hours worked (in-season, off-season, and summer), length of contract, number of sports responsible for providing medical care to, number of fulltime ATs employed at institution, organizational structure, college/university setting, and contract length.

*PIVS.* The PIVS<sup>1</sup> was developed as a measure of counselor professional identity development. The Professional Development subscale corresponds to the three stages of professional advancement through which a counselor progresses during identity development. The first five questions of the PIVS Professional Development subscale represent Stage 1, which describes counselors who understand mental health counseling philosophy but are not yet able to clinically practice from a philosophy. The next five questions relate to Stage 2 which describes counselors who can articulate their own professional identity and use counseling philosophy in clinical practice.

Stage 3 represents counselors who are congruent in professional and personal identity and is assessed by the last four questions in the subscale. Healey and Hays<sup>5</sup> reported the PIVS total subscale score Cronbach's alpha at 0.80 and demonstrated convergent and content validity. For the purposes of this study, some of the wording of the original PIVS scale was changed to better reflect our patient population (i.e. "counselor" was changed to "athletic trainer," and "patient" was changed to "athlete" throughout).

The PIVS was correlated with the previously validated Professional Identity and Engagement Scale<sup>39</sup> in order to determine construct validity.<sup>1</sup> Content validity was also established via expert review of the instrument.<sup>1</sup> The PIVS contains two subscales: 1) Professional Orientation and Values (18 questions) and Professional Development (14 questions) to create the 32-item scale. Participants assessed their agreement to questions posed using a 6-point Likert scale ranging from 1 = strongly disagree to 6 = strongly agree. The Professional Orientation and Values subscale denotes philosophical beliefs about the counseling profession relating to empowerment, advocacy, prevention, social justice, and wellness,<sup>1,5</sup> values that are similar to those of athletic training. Additionally this subscale includes the personal values of counselors that are identified as influential to professional values and includes happiness, spirituality, self-awareness, family, friends, and belongingness.<sup>5</sup>

### ***Data Analyses***

All statistical analysis was completed utilizing SPSS version 22. Our first step was to examine the dimensionality of single survey items by inspecting inter-item correlations. The average inter-item correlation should be between 0.20 and 0.40 ideally.<sup>40</sup> Pett, Lackey, and Sullivan<sup>41</sup> suggest that items intended to measure the same

construct should range between 0.30 and 0.60. These values suggest that scale items are reasonably homogenous yet still provide sufficiently unique variance, meaning they are not isomorphic.<sup>40</sup>

Exploratory factor analysis was then conducted with default settings (Principal Axis Factor – PAF) and to rotate the matrix of loadings to obtain oblique factors (direct oblimin rotation) since we expected factors to be correlated. Eigenvalues were set at 1 in order for item groupings to be retained as a factor. Significant contribution to a factor within the pattern matrix was considered to be an  $r > 0.30$ , which has been recommended in the athletic training literature.<sup>42</sup> All items below a communality extraction of  $r = 0.40$  were removed from the matrix if they did not significantly contribute to a factor. All items that contributed significantly to one factor and then also contributed significantly to another factor at  $r > 0.30$  were removed from the scale. Any items deleted were removed due to low contribution to one factor, significant contribution to multiple factors, or because the grouping of items in a specific factor did not result in a clear concept. Based on results from the exploratory factor analysis we reduced the Professional Development subscale to 13 questions and removed six questions from the Professional Orientation and Values subscale.

Content validity for the items remaining from the PIVS was ascertained through expert review of the instrument. Conceptual definitions for the four stages of professional development as well as definitions derived from the NATA code of ethics and role delineation were provided to reviewers. Expert reviewers included five certified athletic trainers currently employed in the collegiate or secondary school setting and were identified as having knowledge related to the topic of professional development

and professional values specific to athletic training. The reviewers were asked to rank each item with regard to how well it fit each dimension, without knowledge of which subscale each individual question was specifically designed for. Reviewers rated from Not at All (0) to Excellent (7). The criteria used to retain each item depended on overall reviewer agreement with regards to the strength of the item as well as the opinions of the authors.

## **RESULTS**

Following exploratory factor analysis we reduced the PIVS from 32 to 20 items. Each remaining item was gauged with regards to conceptual agreement by the authors and expert reviewers. Item means and standard deviations of all original PIVS items are reported in Table 3.

Initial inter-item correlation performed on the original PIVS showed no items on the Professional Orientation and Values subscale exceeded an inter-item correlation of  $r = 0.634$  indicating that each of the 18 items within the subscale was contributing something unique to the overall instrument. Professional Orientation and Values subscale had a Cronbach's alpha of  $r = 0.70$ . The Professional Development subscale had a Cronbach's alpha of  $r = 0.77$  with no items exceeding an inter-item correlation of 0.611, indicating this subscale was also contributing something unique to the overall instrument.

The exploratory factor analysis yielded six factors and 20 total items. All final items contributed significantly to one factor at a rotated component  $r > 0.30$ . Based on factor analysis we removed 12 questions from the original PIVS scale, 11 questions from the Professional Orientation and Values subscale and 1 question from the

Professional Development subscale. The KMO for the scale was 0.813 with a significant Bartlett's test of sphericity ( $X^2(190) = 2134.77, p = 0.000$ ). The Cronbach's alpha for the entire scale after removal of non-loading factors was  $\alpha = 0.80$ . Tukey's test for non-additivity was statistically significant indicating that the items were non-additive. The pattern matrix for the PIVS can be found in Table 4.

## **DISCUSSION**

The purpose of this study was to validate the PIVS among an athletic training population. The PIVS was originally developed by Healey<sup>1</sup> and was validated among professional counselors. An exploratory factor analysis was completed on the PIVS, which indicated a valid and reliable measure for agreement with the athletic training philosophy as defined by the NATA definition of athletic training,<sup>17</sup> five domains established by the role delineation study,<sup>18</sup> and the NATA code of ethics.<sup>21</sup> We were able to maintain both subscales reducing the Professional Development subscale to 13 items and reducing the Professional Orientation and Values subscale from 18 down to 9 items. While athletic training and counseling have many commonalities and exploratory factors analysis has been completed on this scale utilizing a sample of counselors we felt it was appropriate to conduct additional exploratory factor analysis to highlight the uniqueness of athletic training in regards to its professional development and as a profession.

Healey and Hays<sup>5</sup> included five factors in the Professional Orientation and Values subscale. Our exploratory factor analysis revealed three factors that we labeled: 1) Patient Care and Advocacy, 2) Professional Engagement and Collaboration, and 3) Personal Wellness and Values. While our conceptualized factors do not match those of

the original PIVS, they are representative of the values and principles of the athletic training profession. It is not surprising that our participant's valued patient care and advocacy as multiple studies have highlighted the intrinsic motivation athletic trainers receive from working with athletes, and how that reward increases their professional commitment.<sup>43-45</sup> Additionally, the advocacy component directly relates back to Principle 1 and Principle 3 of the NATA code of ethics describing the importance of commitment to providing competent care and respect the welfare of all, while promoting high standards in their provision of services.<sup>21</sup> Professional engagement and collaboration relates to the importance of professional support networks that have been shown to enhance work-life balance,<sup>45-47</sup> and professional socialization that increases work-related outcomes and quality-of-life within athletic training.<sup>48-50</sup> This concept of professional engagement and collaboration also includes promotion of the profession, which is directly related to the NATA code of ethics. Community services and engagement relates to an athletic trainer being aware of what services are available for their athletes, which relates to Principle 3 of the code of ethics (making referrals when appropriate) as well as their own personal involvement in community services. The final construct, professional wellness and values addresses the congruency between an athletic trainer's personal values and professional philosophies.

Healey and Hays<sup>5</sup> determined three factors in the Professional Development subscale, our exploratory factor analysis also demonstrated three factors, however the items did not fall into the same categories during our factor analysis.

Our exploratory factor analysis clearly identified three factors in the Professional Development subscale. Our factor grouping results indicate that athletic trainers in the



earlier stages of professional development are not yet comfortable in their often autonomous new professional roles. They have a sound understanding of theoretical concepts but are not sure how to apply them in their clinical practice. While athletic training and counseling have similar academic plans and paths towards licensure, the difference observed in the professional development subscale concepts may be attributed to differences in the certification process of athletic trainers and counselors. For counseling there is a Master's Degree requirement, mandated pre-degree field work hours (100 practicum and 600 internship hours), and required specialization training.<sup>51</sup> In addition to the required practicum and internship clinical hours counseling students are required to receive an hour of clinical supervision by a licensed supervisor for every 20 hours of client direct care.<sup>51</sup> While many athletic trainers hold a Master's Degree it is not currently required for certification. There are required clinical hours established by the Commission on Accreditation of Athletic Training Education (CAATE) but these occur at the professional level and the individual academic institutions set their required minimum and maximum number of hours. Additionally, CAATE standards for the accreditation of professional athletic training programs states that all athletic training students must be directly supervised by a preceptor during the delivery of all athletic training services and must be physically present to intervene on behalf of the student or patient.<sup>52</sup> Once an athletic trainer graduates and passes a certification exam they are eligible for licensure and may begin autonomous clinical practice. While many athletic trainers go on to graduate school and work as graduate assistants they are immediately responsible for patient care and outcomes and are exposed to varying levels of mentorship and professional socialization. These differences between counseling and

athletic training education and clinical supervision could help explain the higher value our athletic training participants put on mentors and role models in Stage 2 of professional development and the lack of confidence in their abilities in Stage 1.

## **LIMITATIONS AND FUTURE DIRECTIONS**

The results of this study may not be generalizable to all athletic training professionals because we only included athletic trainers employed in the college/university setting. The job demands and patient populations of other athletic training clinical settings may impact professional identity. Additional testing of athletic trainers employed in different clinical settings is warranted to provide solid indications of professional identity and values across the profession. Further content validity should be established by athletic training professionals. In order to continue with validation of this scale, a confirmatory factor analysis is needed to solidify the items, subscale components, and potential applications within the athletic training profession. This scale also needs to be tested with regard to test-retest reliability.

## **CONCLUSION**

Our findings reveal that a modified PIVS scale is a valid and reliable measure of professional identity among athletic trainers employed with the collegiate setting. This scale has the ability to measure the professional development of athletic trainers as well as their professional values. As athletic training continues to grow, it is essential to have a means to measure professional identity.

**TABLE 1. COMPARISON OF PARTICIPANT DEMOGRAPHICS AND NATA MEMBERSHIP STATISTICS**

DEMOGRAPHIC	Current Study (%)	NATA Membership Statistics (%)*
<b>SEX (N = 299)</b>		
MALE	43.5	45.43
FEMALE	56.5	54.52
<b>RACIAL/ETHNIC IDENTITY (N = 299)</b>		
WHITE (NOT OF HISPANIC ORIGIN)	86.3	80.81
BLACK (NOT OF HISPANIC ORIGIN)	3	3.69
ASIAN OR PACIFIC ISLANDER	3	3.48
HISPANIC	3.7	4.56
MULTI-ETHNIC	2.7	1.66
OTHER NOT SPECIFIED	1.3	0.93
<b>NATA DISTRICT (N = 294)</b>		
1	9.7	6.44
2	13.7	13.99
3	10.7	11.09
4	19.7	20.89
5	9.7	9.51
6	3	6.9
7	4.7	4.99
8	7	7.17
9	13.7	13.92
10	6.4	3.91

\* MEMBERSHIP STATISTICS FROM JANUARY 2016

**TABLE 2. PARTICIPANT DEMOGRAPHIC INFORMATION**

<b>DEMOGRAPHIC</b>	<b>Current Study Demographics n (%)</b>
<b>HIGHEST LEVEL OF EDUCATION (N = 294)</b>	
BACHELOR'S	21 (7)
MASTER'S	256 (85.6)
DOCTORATE	17 (5.7)
<b>POSITION (N = 299)</b>	
ASSISTANT AT	189 (63.2)
HEAD AT	26 (8.7)
ASSOCIATE AT	29 (9.7)
DIRECTOR OF SPORTS MEDICINE	12 (4)
OTHER	43 (14.4)
<b>ORGANIZATIONAL STRUCTURE (N = 299)</b>	
ACADEMICS	16 (5.4)
ATHLETICS	236 (78.3)
MEDICAL	39 (13)
OTHER	8 (2.7)
<b>CONTRACT LENGTH (N = 299)</b>	
9 MONTHS	22 (7.4)
10 MONTHS	62 (20.7)
11 MONTHS	19 (6.4)
12 MONTHS	183 (61.2)
OTHER	13 (4.3)
<b>RELATIONSHIP STATUS (N = 299)</b>	
MARRIED	124 (41.5)
SINGLE	161 (53.8)
DIVORCED	4 (1.3)
OTHER	10 (3.3)

<b>SEXUAL ORIENTATION (N = 294)</b>	
HETEROSEXUAL	274 (91.6)
HOMOSEXUAL	16 (5.4)
BISEXUAL	3 (1)
OTHER	1 (0.3)
<b>FAMILY STATUS (N = 299)</b>	
NO CHILDREN	204 (68.2)
CHILDREN	95 (31.8)
<b>COLLEGE/UNIVERSITY SETTING (N = 299)</b>	
NCAA I	154 (51.5)
NCAA II	48 (16.1)
NCAA III	73 (24.4)
NAIA	24 (8)

**Table 3. PIVS Means and Standard Deviations**

	Mean	SD
<b>Professional Orientation and Values</b>		
Awareness of social justice issues is an integral part of being a competent athletic trainer	4.3367	1.05640
Athletes should be dependent on athletic trainers to help them come with life issues (R)	3.6757	1.06860
Building a strong relationship with an athlete is essential to the rehabilitation process	5.2896	.76028
Therapeutic interventions should be flexible with regards to an athlete's presenting concerns	5.1077	.75012
Having a holistic perspective is an essential part of being a health care professional	4.8851	1.01863
Assisting athletes in advocating for their needs is an important component of one's role as an athletic trainer	5.0471	.83694
Athlete empowerment is a fundamental component of one's role as an athletic trainer	4.5152	1.06254
I believe most athletic injuries are the result of diagnosable illness requiring long-term medical and/or biomechanical intervention (R)	3.7432	1.04555
It is an athletic trainer's primary goal to take responsibility for finding and connecting athletes with community resources (R)	3.6655	1.08282
An integral part of the rehabilitation process is assisting athletes in recognizing their strengths	4.5522	.83310
An important part of an athletic trainer's role is to provide an objective perspective for athletes	4.8576	.68019
Community service is valuable for my work as a health care professional	3.8514	1.07271
It is important for athletic trainers to be involved in promoting the athletic training profession	5.1149	.81114
Building strong professional relationships with other athletic trainers is important to me	5.1318	.81482
The quality of my professional work is more important that the quantity of work completed	4.8990	.90227
My personal wellness is important to my work as a health care professional	5.0204	.90858
My work as an athletic trainer is fundamentally connected to my personal spirituality	3.9458	1.31078
Athletic trainers work best when professional expectations match personal values	4.8378	.84013

<b>Professional Development</b>		
Overall, I do not feel confident in my role as an athletic trainer (R)	5.1137	1.12943
My approach to my work in athletic training is largely modeled after those I perceive to be experts	4.2508	1.03006
Feedback from my supervisors and experts serve as the primary means by which I gauge my professional competence	3.7785	1.13021
I am unsure about who I am as an athletic trainer (R)	5.0201	1.06796
I understand theoretical concepts but I am unsure how to apply them (R)	4.7592	1.03084
I am still in the process of determining my professional approach (R)	4.3880	1.30435
I always gauge my professional competence based on both internal criteria and external evaluation	4.2508	1.01033
In making professional decisions, I balance my internal professional values and the expectations of others	4.0438	.98713
Based on my level of experience within the athletic training profession, I have begun developing specialization within the field.	3.9197	1.09617
I have developed personal indicators for gauging my own professional success	4.2315	1.00340
I feel confident in my role as an athletic training professional	5.0669	.89116
I feel comfortable with my level of professional experience	4.9064	.87351
At this stage in my career, I have developed a professional approach that is congruent with my personal way of being	4.8428	.83468
I have developed a clear role for myself with the athletic training profession that I think is congruent with my individuality	4.7960	.88719

**TABLE 4. PIVS Pattern Matrix**

		Factor				
	Stage	Stage	Patient	Pro	Personal	Stage
	3	2	Care and	Engagement	Wellness	1
			Advocacy	and	and	
				Collaboration	Values	
At this stage in my career, I have developed a professional approach that is congruent with my personal way of being	<b>.877</b>					
I have developed a clear role for myself with the athletic training profession that I think is congruent with my individuality	<b>.764</b>					
I feel comfortable with my level of professional experience	<b>.726</b>					
I feel confident in my role as an athletic training professional	<b>.602</b>					
Based on my level of experience within the athletic training profession, I have begun developing specialization within the field.	<b>.504</b>					
I have developed personal indicators for gauging my own professional success	<b>.401</b>					
I always gauge my professional competence based on both internal criteria and external evaluation		<b>.791</b>				
In making professional decisions, I balance my internal professional values and the expectations of others		<b>.508</b>				
Feedback from my supervisors and experts serve as the primary means by which I gauge my professional competence		<b>.301</b>				
Assisting athletes in advocating for their needs is an important component of one's role as an athletic trainer			<b>-.879</b>			
Athlete empowerment is a fundamental component of one's role as an athletic trainer			<b>-.709</b>			
Therapeutic interventions should be flexible with regards to an athlete's presenting concerns			<b>-.443</b>			
Building strong professional relationships with other athletic trainers is important to me				<b>.787</b>		



It is important for athletic trainers to be involved in promoting the athletic training profession							<b>.624</b>
My work as an athletic trainer is fundamentally connected to my personal spirituality							<b>-.622</b>
Athletic trainers work best when professional expectations match personal values							<b>-.430</b>
I understand theoretical concepts but I am unsure how to apply them (R)							<b>.771</b>
I am still in the process of determining my professional approach (R)							<b>.718</b>
I am unsure about who I am as an athletic trainer (R)							<b>.672</b>
Overall, I do not feel confident in my role as an athletic trainer (R)							<b>.562</b>
<b>Percentage of Variance</b>	26.09	13.63	8.19	6.91	5.48	4.81	
<b>Eigenvalue</b>	5.21	2.73	1.64	1.38	1.10	1.01	

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

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## CHAPTER IV

### MANUSCRIPT II

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

##### **ABSTRACT**

**Background:** Recent employment data in collegiate athletic training have demonstrated departure trends among males and females. These trends have been hypothesized to be related to issues of work-life balance. However, work-life balance is only one factor in a myriad of issues. Due to the complex nature of the work-life interface a multilevel examination is needed to better understand the precipitators of departure.

**Purpose:** Quantitatively examine factors that may influence collegiate athletic trainers' job satisfaction and career intentions via a multilevel examination of the work-life interface.

**Study Design:** Cross-sectional study

**Setting:** Web-based questionnaire

**Patients or Other Participants:** Athletic trainers employed in NCAA Division I, II, III, or NAIA colleges or universities (n = 299, 56.5% female, 43.5% male). Average age of participants was  $33.6 \pm 8.3$  with  $10.3 \pm 7.6$  years experience.

**Methods:** Participants responded to an online questionnaire consisting of demographic questions, 9 Likert scale surveys, and open ended questions. Job Satisfaction Scores (JSS) and Intention to Leave Scores (ITLS) served as the dependent variables and factors from individual, organizational, and sociocultural levels were utilized as

independent factors. Hierarchical regression analysis was run to determine predictability of factors and an ROC curve was utilized to determine cutoff values for scales.

**Results:** No gender differences in ITLS or JSS were found in our sample. Independent variables explained 28.8% of the variance in ITLS and 68.5% of the variance in JSS.

Addition of factor levels increased the percentage of explained variance in both scores.

ROC curve analysis revealed cutoff scores on multiple scales indicating desired outcomes on JSS and ITLS.

**Conclusions:** A combination of individual, organizational, and sociocultural level factors were able to best predict ITLS and JSS among collegiate athletic trainers. Establishing cutoff values on several scales provides a potential objective tool organizations can utilize in workplace retention strategies.

**Key Words:** workplace strategies, organizational culture

**Word Count: 300**

## INTRODUCTION

Employee turnover is a normal and unavoidable occurrence within the American workforce, nonetheless a high rate of voluntary employee withdrawal becomes problematic as it can negatively influence many aspects of an organization.<sup>1</sup> High employee attrition raises expenses for the organization and has a negative impact on general employee morale. Within allied healthcare, professional turnover has the added potential to negatively affect patient care and organizational effectiveness.<sup>1</sup> Retention has been studied comprehensively within nursing<sup>2-5</sup> as well as in the athletic realm among collegiate coaches.<sup>6,7</sup> Within the athletic training profession retention was first studied in the 1990's by Capel<sup>8</sup> and has become an objectively well researched topic,<sup>9-12</sup> particularly because a decline in professionals is overlapping with a time of serious need for clinicians.<sup>12</sup> Kahanov and Eberman<sup>12</sup> identified a decline in the athletic training labor force among both male and female athletic trainers in their late 20s and early 30s. They reported that women composed the majority of the athletic training population between the ages 22 and 28 and then drastically declined between ages 28 and 35. They also reported that the male population within their sample showed an employment shift from the clinical and college settings to the secondary school setting in their middle to late 40s.

Kahanov, Eberman, and Juzeszyn<sup>13</sup> found that athletic trainers who had left the profession were driven by both intrinsic and extrinsic factors. Their data suggested that items of burnout consistently contributed to leaving the athletic training profession and that employment factors such as role overload, lack of administrative support, and travel demands also contributed to leaving the profession. Terranova and Henning<sup>14</sup> found a



strong negative correlation between job satisfaction and intention to leave the athletic training profession among collegiate athletic trainers regardless of NCAA division.<sup>15</sup>

Links have been found between an athletic trainer's personality and their job satisfaction,<sup>16</sup> as well as female's gender ideologies and their career intentions.

Research within athletic training has suggested that organizational retention strategies should include more work schedule autonomy, enhanced peer and co-worker support, supervisor support, flexible work practices, and enhanced communication.<sup>10,17-20</sup> What these various links and potential retention strategies highlight is that the work-life interface is complex and has multiple levels of influence.

Rather than investigating isolated precursors and consequences researchers have recognized the need for multilevel examination of the work-life interface.<sup>21</sup> 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. The most basic argument for the use of multilevel examination is that much of what we want to study regarding the work-life interface is multilevel in nature. A failure to investigate multilevel systems through a multi-dimensional lens may end in several serious problems. Ecological fallacy occurs when relationships observed in groups are assumed to hold for individuals.<sup>22</sup> Atomistic fallacy occurs when interpretations about groups are inaccurately concluded from individual level information.<sup>23</sup> These type of fallacies occur when relationships at one particular level are inappropriately assumed to occur at other levels in the same fashion. It therefore is essential to examine the work-life interface

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

The primary purpose of this study was to quantitatively examine and develop a better understanding of the factors that may influence collegiate athletic trainers' job satisfaction and career intentions via a multilevel examination of the work-life interface. We specifically targeted collegiate athletic trainers because they represent the largest population of National Athletic Trainers' Association (NATA) members<sup>24</sup> and because of the organizational demands of the setting that have been reported in the literature.<sup>25-28</sup> 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 one uni-level examination. Additionally we hypothesized that women will have higher departure intentions than their male counterparts, years of certification will negatively correlate with intention to depart the profession, and athletic trainers who work more than 60 hours per week will have greater intentions to leave than those who work less than or equal to 60 hours per week.

## **METHODS**

### **Participants**

All participants in this study (n = 299) were certified athletic trainers employed in NCAA Division I, II, III or NAIA colleges or universities and NATA members. Athletic trainers employed in the collegiate/university setting were purposefully chosen because they represent the largest population of NATA members.<sup>24</sup> Inclusion criteria consisted of: 1) employment in the college or university setting. Participants were excluded from the study if 1) they were graduate assistant or 2) intern athletic trainers. Of the 1653 emails

that were sent out to participants that met inclusion criteria, 487 surveys were started (29.4% response rate) and 299 surveys were completed (39% dropout rate). Participants identified as male ( $n = 130$ , 43.5%), and female ( $n = 169$ , 56.5%). Our participants were  $33.6 \pm 8.3$  (22-61) years old, with  $10.3 \pm 7.6$  (0.5 – 37) years of experience working as an athletic trainer. They worked  $60 \pm 12.1$  (10-100) hours a week during their “in-season”,  $45.8 \pm 10.6$  (5 – 85) hours a week during their “off-season”, and  $21.3 \pm 16.1$  (0 - 70) hours a week during the summer. The majority of our participants were contracted for 12 months ( $n = 183$ , 61.2%) and on average traveled with  $1.8 \pm 1.4$  (1-13) teams as part of their work responsibilities. Participants reported their racial/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%), Multi-Ethnic ( $n = 8$ , 2.7%), and other not specified ( $n = 4$ , 1.3%). The majority of our participants were single ( $n = 161$ , 53.8%) and did not have children ( $n = 204$ , 41.5%). All of our participants who reported having children also self-reported being married. Additional demographic information can be found in Table 1.

## **Procedures**

This study was part of a study that aimed to examine the career intentions of collegiate athletic trainers from a multilevel perspective. A cross sectional web-based survey design was utilized to collect data. We uploaded the survey instruments to Qualtrics to collect data from participants. We contacted the NATA to prepare a contact list of athletic trainers currently working in the college or university setting after institutional review board approval. The NATA provided us with a list of 2000 email addresses, 1653 were viable (email addresses were either inactive or individuals responded to let us

know they did not meet inclusion criteria). Initial email recruitment were sent out and consisted of an overview of the study as well as a link to the online survey (Qualtrics). Two email reminders were sent to all participants prompting them to complete the survey if they had not yet done. All participants were emailed because we were not able to link responses to email addresses, helping maintain the confidentiality of our participants. The first reminder was sent out two weeks after initial recruitment and the second email reminder went out four weeks after initial recruitment emails. The online survey included demographic questions, nine Likert scale Surveys, and open ended questions.

## **Questionnaires**

In order to examine factors at multiple levels, we carefully selected previously validated surveys in order to ensure a multilevel assessment. Additionally, for a study within athletic training it was important that we selected surveys that measured specific factors at the individual level of analysis as opposed to a departmental level of analysis. Original Cronbach  $\alpha$  for each questionnaire be found in Table 2. Below we will briefly describe each scale utilized in this study. Table 3 provides a summary of each survey and its corresponding factor level.

### ***Worktime Control***

Ala-Mursula and colleagues<sup>29</sup> created a work-time control survey in 2005 as a way to determine if work stress or sickness absence is related to the amount of control employees have over their working time. Their survey consisted of six items and utilized a 5-point Likert scale (very little to very much) to determine how much individuals are able to influence various aspects of their working time including length of workday,

starting and ending times of the work day, taking of breaks during the workday, and scheduling. A mean of the 6 items is used to determine the amount of control individuals have over their work schedule. A higher mean would indicate more perceived worktime control. They found that good control over working times reduced the adverse effects of work stress on sickness absence particularly among female employees. Providing employees with control over their worktime is likely to save organizations considerable financial resources through fewer sickness absences.

### ***Professional Identity and Values Scale***

The Professional Identity and Values scale (PIVS) was developed as a measure of counselor professional identity development.<sup>30</sup> Healey and Hays<sup>31</sup> reported the PIVS total subscale score Cronbach's alpha at 0.80 and demonstrated convergent and content validity. Healey's original PIVS contained two subscales: 1) Professional Orientation and Values (18 questions) and Professional Development (14 questions) to create the 32-item scale. Participants assessed their agreement to questions posed using a 6-point Likert scale ranging from 1 = strongly disagree to 6 = strongly agree. Recently the PIVS was validated among an athletic trainer population.<sup>32</sup>

### ***Perceived Organizational Family Support***

All of the work-family policies and practices offered by an organization would be considered organizational family support. The literature supports that simply offering work-life programs does not necessarily mean that employees within an organization find them supportive of their work-life needs.<sup>33</sup> Therefore it is essential to measure employee perceptions of organizational support. Jahn, Thompson, and Kopelman<sup>34</sup> developed a survey that measures tangible and intangible support employees perceive.

Items are rated on a 5-point Likert Scale (1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree). A higher score would indicate a higher perception of organizational support.

### ***Perceived Supervisory Family Support***

While 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. Allen<sup>33</sup> demonstrated that supervisor support had direct and indirect impact on employee attitudes such as work-family conflict, organizational commitment, job satisfaction, and turnover intention. Fernandez developed a 6-item Perceived Supervisory Family Support scale.<sup>35</sup> As originally formulated, it asked parents to indicate the degree to which supervisors are willing to be flexible and understanding when work–family conflicts arise. Items are rated on a 5-point Likert Scale (1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree). Due to the fact that employees tend to differentiate support from their organization and support from their supervisor<sup>36</sup> it is important to measure both in order to assess organizational level factors.

### ***Work-Family Conflict***

Work-family conflict is a kind of interrole conflict where the demands of functioning in the two domains of work and family are incompatible in some aspect.<sup>37</sup> The majority of measures used currently recognize the bidirectional nature of the conflict. Matthews, Kath, and Barnes-Farrell<sup>38</sup> validated a short, valid measure of work-

family conflict. Items are rated on a 5-point Likert Scale (1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree).

### ***Work-Family Enrichment***

It is important to examine the potentially positive experiences one may experience as a result of work and life crossover as an individual factor. A short, valid survey of work-life enrichment was created by Kacmar et al<sup>39</sup> to measure work-family enrichment. Items are rated on a 5-point Likert Scale (1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree).

### ***Attitude towards Women Scale***

The Attitudes toward Women Scale (AWS) is the most widely used instrument to assess attitudes about women's right and roles in society.<sup>40</sup> It was developed in 1972 as a 55-item self-reported instrument<sup>41</sup> and was subsequently reduced to 25 items.<sup>42</sup> The AWS scale placed individuals 'on a continuum of attitudes ranging from traditional to egalitarian'.<sup>41</sup> Each item on the AWS has four response alternatives ranging from agree strongly to disagree strongly. Each item is given a score from 0-3, with 0 representing the most traditional views and 3 the most egalitarian views. When Spence and Helmreich<sup>41</sup> initially selected items for the AWS their goal was to include statements that described roles and behaviors in all major areas of activity in which normative expectations could be, in theory, the same for men and women. The 25 item version of the test was shown to correlate highly with the 55 item version of the AWS.<sup>42</sup>

### ***Job Satisfaction***

Job satisfaction has been defined as the degree to which individuals like their job.<sup>43</sup> Issues related to job satisfaction are not isolated to the athletic training profession,

however the nature of individual professions is what influence the degree of satisfaction. Job satisfaction has been shown to be the main predictor of intention to leave a profession or organization.<sup>2,3</sup> A person with higher job satisfaction is less likely to leave a profession compared to an individual with lower job satisfaction.<sup>3</sup> Job satisfaction is a well-documented facilitator of organizational and professional commitment,<sup>44,45</sup> especially in the nursing and healthcare field. Terranova and Henning<sup>14</sup> found a strong negative correlation between various facets of job satisfaction and intention to leave athletic training. Weiss et al<sup>46</sup> created a 20-question survey to measure job satisfaction. Items are rated on a 5-point Likert Scale (1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, 5 = very satisfied). The job satisfaction survey consists of two subscales: intrinsic satisfaction, extrinsic satisfaction. A higher score on this scale represents higher levels of general job satisfaction.

### ***Career Intentions***

Investigating career intentions offers an indication of whether an employee will continue in their current position, look for another position within the same profession, or depart the profession entirely. It is important to remember that career intentions are an examination of 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,<sup>14</sup> which is comprised of seven questions to determine the respondent's intention to leave the athletic training profession. All responses were presented in a 4-point Likert scale. Three items were intended to determine how often a participant had considered leaving the profession, one item was intended to determine how actively an individual had pursued leaving the professions, and the remaining items were designed



to judge the probability of staying in the profession of athletic training. A value of 1 corresponded with less intention to leave the athletic training profession, and a 4 corresponded with a greater intention to leave. Two items were reversed scored to remain consistent with a higher value indicating a greater intention to leave the profession.

### **Statistical Analysis**

The Cronbach  $\alpha$  was used to determine each instrument's internal consistency.

Participant demographics consisted of the following variables: Individual (age, sex, race/ethnicity, highest level of education, years of experience, years at current position, marital status, and family status) and organizational (NCAA Division of employment, organizational reporting structure, average number of hours worked per week, contract length, 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, perceived supervisory family support), and sociocultural (attitudes towards women). Our dependent variables were: job satisfaction and career intention scores. Data were downloaded from Qualtrics into an Excel spreadsheet, which we converted to an SPSS worksheet. Descriptive statistics and significance testing were calculated using SPSS (version 22.0; IBM Corporation).

A Kolmogorov-Smirnov test was used to test for normality on the main dependent variables, career intentions and job satisfaction. Separate independent t-tests were run to determine if there was a difference in job satisfaction and career intentions based on gender, years of experience (dichotomized to <10 years or  $\geq$  10 years of experience), or

average number of hours worked per week in-season (dichotomized  $\leq 60$ hrs/wk or  $> 60$ hrs/wk). A one-way ANOVA was run to determine if NCAA Division of employment impacted career intentions or job satisfaction.

Prior to running a hierarchical multiple regression, relevant assumptions were tested. As the independent variables were not a combination of other independent variables, the assumption of singularity was met. Correlations of the independent variables (Table 5) revealed that no variables were highly correlated, with the exception of POFS and PSFS scores. However, the assumption of multicollinearity was met because Tolerance and VIF (collinearity statistics) were all within accepted limits.<sup>47</sup> Mahalanobis distance scores revealed no multivariate outliers, and residual and scatter plots indicated that assumptions of linearity, normality, and homoscedasticity were satisfied.<sup>47</sup> Two four stage hierarchical multiple regressions were conducted; one with ITL as the dependent variable and the other with JSS as the dependent variable. Participant demographics (age, sex, marital status, family status, NCAA Division of employment, organizational structure, and average number of hours worked per week in-season) were entered as stage one of the regression as a control. The independent level factors (WFE, WTC, PIVS) were entered at stage two, organizational level factors (WTC, POFS, PSFS) at stage three and sociocultural level factors (AWS) at stage 4. The relationship variables were entered in this manner in order to examine factor level impact on the fit of the regression model.

In order to determine the sensitivity and specificity of the surveys included in this study we choose to utilize a receiver operating characteristic (ROC). An ROC curve compares sensitivity versus specificity across a range of values for the ability to predict

a dichotomous outcomes.<sup>48</sup> The area under the ROC curve (AUC) is an additional measure of test performance that determines a tests inherent ability to discriminate between desired and undesired outcomes.<sup>49</sup> In order to run an ROC, the dependent variables need to be dichotomous so we recoded ITLS and JSS using the median as a cutoff point. For ITLS  $\leq 10$  were coded 0 and represented the desired outcomes (a low intention to depart the athletic training profession) and ITLS  $> 10$  were coded as a 1. For JSS  $\leq 75$  were coded a zero and  $> 75$  were coded a 1 and represented the desired outcomes (higher levels of job satisfaction). A higher score on all of our independent variables (WFE, PIVS, WTC, POFS, PSFS, AWS) indicated a more positive test result for both ITLS and JSS, except for WFC scores (a lower score results in a more positive test). We determined cutoff values based on the Youden-Index, or the point in which the sensitivity and specificity was maximal on the ROC curve.<sup>50</sup>

## RESULTS

The internal consistency for all instruments used in this study can be found in Table 2. We found the Cronbach's  $\alpha$  for all surveys was found to be  $\geq 0.69$  indicating moderate to strong internal consistency. A Spearman's correlation found a moderate negative correlation between job satisfaction and career intentions ( $r = -.408$ ,  $p = 0.000$ ).

### Demographics

Participants overall scores on the survey can be found in Table 4. There were no significant differences in the ITLS for men ( $10.9 \pm 3.6$ ) and women ( $11.6 \pm 3.7$ );  $t(297) = -1.46$ ,  $p=0.144$ ,  $CI = (-1.5 - 0.22)$ , for those athletic trainers with  $< 10$  years of

experience ( $11.5 \pm 3.9$ ) and those athletic trainers with  $\geq 10$  years of experience ( $11 \pm 3.6$ );  $t(297) = 1.095$ ,  $p = 0.275$ ,  $CI = (-0.39 - 1.36)$ , or for those athletic trainers who worked  $\leq 60$ hrs/wk ( $11.3 \pm 3.7$ ) and those athletic trainers who worked  $> 60$ hrs/wk ( $11.2 \pm 3.7$ );  $t(290) = 0.195$ ,  $p = 0.784$ ,  $CI = (-0.79 - 0.97)$ . There were no statistically significant ITLS differences between NCAA Division of employment group means (Div I = 10.9, Div II = 11.2, Div III = 11.5, NAIA = 11.9) as determined by one-way ANOVA ( $f(3,295) = .490$ ,  $p = 0.690$ ).

There were no significant differences in the JSS for men ( $73.0 \pm 11.7$ ) and women ( $73.8 \pm 10.1$ );  $t(291) = -.609$ ,  $p = 0.543$ ,  $CI = (-3.3 - 1.7)$ , for those athletic trainers with  $< 10$  years of experience ( $72.8 \pm 10.5$ ) and those athletic trainers with  $\geq 10$  years of experience ( $74.5 \pm 11.2$ );  $t(291) = -1.370$ ,  $p = 0.172$ ,  $CI = (-4.29 - .77)$ . There were no statistically significant JSS differences between NCAA Division of employment group means (Div I = 73.4, Div II = 72.7, Div III = 73.6, NAIA = 75.1) as determined by one-way ANOVA ( $f(3,289) = 0.261$ ,  $p = 0.853$ ). There was however statistical significant differences in the JSS for those athletic trainers who worked  $\leq 60$ hrs/wk ( $74.8 \pm 10.5$ ) and those athletic trainers who worked  $> 60$ hrs/wk ( $71.4 \pm 11.1$ );  $t(284) = 2.630$ ,  $p = 0.009$ ,  $CI = (0.86 - 6.01)$ .

## **Regression**

A summary of the hierarchical regression analysis for variables predicting ITLS can be found in Table 6 and variables predicting JSS can be found in Table 7. The hierarchical multiple regression with ITL as the dependent variable revealed that at stage one the demographic variables did not contribute significantly to the regression model,  $F(7,243) = .662$ ,  $p = .704$  and accounted for 1.9% of the variation in ITL.

Introducing the independent level factor variables explained an additional 19.6% of variation in ITL 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 ITL and this change in  $R^2$  was significant,  $F(3,237) = 6.63$ ,  $p = .001$ . Lastly, the addition of the sociocultural level factor variable explained an additional 2.1% of the variation in ITL and this change in  $R^2$  was also significant,  $F(1,236) = 6.81$ ,  $p = .009$ . When all independent variables were included in stage four of the regression model they accounted for 28.8% of the variance in ITL. The hierarchical multiple regression with JSS as the dependent variable revealed that at stage one 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 independent 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 PSFS which uniquely explained 8% of the variance in JSS. When all independent variables were included in stage four of the regression model they accounted for 68.5% of the variance in JSS.

### **ROC Curve**

The cutoff values for both ITLS and JSS for each scale can be found in Table 4. The ROC curve analysis for ITLS revealed that AWS and PIVS were not predictive,

WFE, and WTC were poor predictors, and WFC, POFS, and PSFS were fair predictors. The curves and AUC values for all predictors of ITLS desired outcome can be found in Figure 1. The ROC curve analysis for JSS revealed that AWS was not a predictor, WFC, WFE, PIVS, WTC, and POFS were fair predictors, and PSFS was a good predictor. The curves and AUC values for all predictors of JSS desired outcomes can be found in Figure 2.

## **DISCUSSION**

This study is unique as it is the first to quantitatively examine the work-life interface of collegiate athletic trainers and the impact on job satisfaction and career intentions. The most important finding from this study is that a combination of individual, organizational, and sociocultural factors are predictive of the JSS of collegiate athletic trainers. Additionally, using ROC curves we were able to establish cutoff points on several individual and organizational level factor measurement scales to indicate positive outcomes on ITLS and JSS, or decreased intention to leave and high job satisfaction. All surveys utilized in this study demonstrated adequate levels of internal consistency. These findings 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 low ITLS and high JSS. Additionally we found that increased JSS corresponded to lower ITLS, which is similar to previous research within athletic training<sup>14</sup> and other professions.<sup>3,51,52</sup> Examining career intentions only offers an indication of whether an employee will persist in their 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 for the terminal action of turnover.<sup>3</sup> In order to fully understand turnover within athletic training more longitudinal studies should be conducted to track career paths of individuals or individuals who have left the profession of athletic training should be studied.

### ***Demographic Results***

We found that our participants had low levels of work-family conflict, little control over their work schedules, high levels of work-family enrichment, perceived supervisor family support, and professional identity. Our participants also tended to have more egalitarian gender ideologies overall. Our participants overall lower levels of work-family conflict may represent a selection bias in that only individuals with low levels of work-family conflict felt that they had the time to complete our survey and that individuals who had higher levels of work-family conflict did not choose to start or finish this survey. This could explain our high survey dropout rate.

No gender differences in ITLS or JSS were found in our sample. This is consistent with recent athletic training literature that show both men and woman utilize similar work-life balance strategies and cite comparable antecedents of work-life conflict.<sup>10,18,19,53</sup> Mazerolle et al.<sup>54</sup> reported that men and women have similar feelings regarding willingness to leave the profession. We were also able to determine that NCAA level of employment did not influence ITLS or JSS. We dichotomized the participant's years of experiences (< 10 or  $\geq$  10) based reports that employees with fewer than 10 years of experience had significantly higher intentions to leave;<sup>52</sup> however we did not find that years of experience impacted our participant's ITLS or JSS. The average number of hours worked per week in-season did not impact our participant's

ITLS score but we did find that athletic trainers who worked more than 60 hours on average during their in-season were less satisfied with their jobs. Previous literature in athletic training has shown that long work hours create sources of conflict in regards to work-life balance.<sup>10</sup> Similarly, Pitney<sup>55</sup> found that the number of hours worked were a contributing factor to role strain.

### ***Predictability of Individual, Organizational, and Sociocultural Factors***

Controlling for demographic factors we found that work-family conflict, work-family enrichment, and gender ideologies were significant predictors of ITLS. Our results show that as work-family conflict scores increase so does ITLS and when work-family enrichment scores increase, ITLS scores decrease. The quantitative link to gender ideologies helps explain the recent findings of a qualitative analysis that found women with traditional gender ideologies and men with egalitarian gender ideologies were more inclined to look for an athletic training position outside of the college setting or depart the profession entirely than women with egalitarian gender ideologies or men with traditional gender ideologies.<sup>32</sup> While these factors were able to statistically predict ITLS, all individual, organizational, and sociocultural factors entered into the model only accounted for 28.8% of the variance in ITLS. As we have previously stated, intention to leave does not represent actual turnover. Therefore, examining job satisfaction can further broaden our understanding of the work-life interface.

Controlling for demographic factors we did find that work-family enrichment, professional identity, worktime control, and perceived supervisor family support were significant predictors of JSS. A combination of individual, organizational, and sociocultural factors accounted for 68.5% of the variance in JSS. We found that



perceived supervisor family support accounted for 8% of the total variance in JSS score by itself. Many researchers agree that leaders have a reasonably significant influence on establishing organizational culture through a top-down perspective,<sup>56-58</sup> and within athletic training head athletic trainers have been shown to be work-life balance role models and have been identified as the “gatekeepers” to the ability to maintain balance.<sup>17,59</sup>

The advantageous consequences connected to work-life enrichment have been documented in the literature and can be categorized into three distinct categories: 1) work-related, 2) non work-related, and 3) health related.<sup>60</sup> Greenhaus and Powell<sup>61</sup> explained that a parent who has strong time management skills as a result of parenting creates more positive emotions at home which transfers to more positive emotions at work. Therefore it is not surprising that higher levels of work-family enrichment impacted both the ITLS and JSS of our participants. Rhoades and Eisenberg<sup>62</sup> reported that when beneficial treatment is sensed by one group, the other reciprocates, 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 supervisor family support and JSS. If employees perceive that the organizations they work for are helping them balance their work and life roles, they are likely to feel supported by their organization.<sup>62</sup> In return an employee feels obligated to reciprocate toward their organization in the form of more favorable attitudes towards their job and organization.<sup>63</sup> According to social exchange theory, if the work role is perceived by the individual as providing affect to help in the life role, then the employee is most likely to reciprocate toward their work role as this is viewed as the domain providing the benefit.<sup>64</sup>

### ***Determining Cutoff Values***

Utilizing ROC curves we are able to determine cutoffs values to indicate desired outcomes, in this case low ITLS scores and high JSS. Having definitive cutoffs may be helpful in creating workplace strategies to help retain individuals or improve their overall job satisfaction. For example, we found that perceived supervisor support was a good test for predicting JSS and we established a cutoff value of 48.5. A score on the PSFS scale is likely to predict lower job satisfaction. Therefore, if this was identified communicating between employee and supervisor could be initiated to help increased perceptions of supervisor family support or human resource training may help increase the supportiveness of a supervisor.

While ROC curves have traditionally been utilized to analyze the sensitivity and specificity of diagnostic tests, they are intended to compare sensitivity versus specificity across a range of values to predict a dichotomous outcomes.<sup>48</sup>

### **Limitations and Future Directions**

While our response rate (29.4%) was fair, it was comparable with that of other online based surveys conducted and published within the athletic training literature.<sup>54,65</sup> The results of this study may not be generalizable to all athletic training professionals because we only included athletic trainers employed in the college/university setting. The job demands and patient populations of other athletic training clinical settings may impact professional identity. We utilized an intention to leave survey which only assess general willingness to depart the profession or their current position. Future studies should look at career intentions over time and measure actual turnover to expand our knowledge. Additionally as recent studies have highlighted the impact time of year may

have on individual's perceptions of their work and personal lives,<sup>26</sup> future studies examining the work-life interface should be conducted in a longitudinal manner. In addition

## **CONCLUSION**

We found that a combination of individual, organizational, and sociocultural level factors were able to best predict ITLS and JSS among collegiate athletic trainers. These results give credence to the importance of examining the work-life interface from a multilevel approach. To focus solely on factors at any one of the levels would discredit the value and impact of factors from other levels. We were able to establish that individual level factors do have a bottom-up impact on job satisfaction and intention to leave, but we also found that sociocultural and organizational level factors had predictive relationships to these outcomes as well. By establishing cutoff values for the survey utilized in this study we offer a potential objective tool that sports medicine departments, head athletic trainers, individuals, and organizations may utilize in order to implement workplace retention strategies. The goal of this research is to create policies that will stimulate change in the organization and enhance the work-life interface of individuals to help retain athletic trainers within all settings.

**TABLE 1. PARTICIPANT DEMOGRAPHIC INFORMATION**

<b>DEMOGRAPHIC</b>	<b>Current Study Demographics n (%)</b>
<b>HIGHEST LEVEL OF EDUCATION (N = 294)</b>	
BACHELOR'S	21 (7)
MASTER'S	256 (85.6)
DOCTORATE	17 (5.7)
<b>POSITION (N = 299)</b>	
ASSISTANT AT	189 (63.2)
HEAD AT	26 (8.7)
ASSOCIATE AT	29 (9.7)
DIRECTOR OF SPORTS MEDICINE	12 (4)
OTHER	43 (14.4)
<b>ORGANIZATIONAL STRUCTURE (N = 299)</b>	
ACADEMICS	16 (5.4)
ATHLETICS	236 (78.3)
MEDICAL	39 (13)
OTHER	8 (2.7)
<b>CONTRACT LENGTH (N = 299)</b>	
9 MONTHS	22 (7.4)
10 MONTHS	62 (20.7)
11 MONTHS	19 (6.4)
12 MONTHS	183 (61.2)
OTHER	13 (4.3)
<b>RELATIONSHIP STATUS (N = 299)</b>	
MARRIED	124 (41.5)
SINGLE	161 (53.8)
DIVORCED	4 (1.3)
OTHER	10 (3.3)

<b>SEXUAL ORIENTATION (N = 294)</b>	
HETEROSEXUAL	274 (91.6)
HOMOSEXUAL	16 (5.4)
BISEXUAL	3 (1)
OTHER	1 (0.3)
<b>FAMILY STATUS (N = 299)</b>	
NO CHILDREN	204 (68.2)
CHILDREN	95 (31.8)
<b>COLLEGE/UNIVERSITY SETTING (N = 299)</b>	
NCAA I	154 (51.5)
NCAA II	48 (16.1)
NCAA III	73 (24.4)
NAIA	24 (8)

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**Table 2: Reliability scores of Validated Survey Instruments**

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<b>Questionnaire Component</b>	<b>Previous Reliability</b>	<b>Current Study Reliability</b>
Worktime Control Scale	$\alpha$ 0.86	$\alpha$ 0.82
Perceived Organizational Family Support Scale	$\alpha$ 0.94	$\alpha$ 0.92
Perceived Supervisory Family Support Scale	$\alpha$ 0.63 to 0.93	$\alpha$ 0.96
Intention to Leave Survey	$\alpha$ 0.86	$\alpha$ 0.83
Job Satisfaction Scale	$\alpha$ 0.77 to 0.91	$\alpha$ 0.90
Work-Family Conflict Survey	$\alpha$ 0.85	$\alpha$ 0.69
Work-Family Enrichment Scale	$\alpha$ 0.64 to 0.86	$\alpha$ 0.78
Professional Values and Identity and Values Scale	$\alpha$ 0.80	$\alpha$ 0.80
Attitude Towards Women Scale	$\alpha$ 0.81	$\alpha$ 0.83

**TABLE 3. VARIABLE LIST INDICATING LEVELS OF MEASUREMENT AND ANALYSIS.**

	<u>How Measured?</u>	<u>Level of Measurement</u>	<u>Level of Analysis</u>
<b><i>WORK TIME CONTROL (WTC)</i></b>	Survey responses	Organizational Influences	Individual
<b><i>PERCEIVED ORGANIZATIONAL FAMILY SUPPORT (POFS)</i></b>	Survey responses	Organizational Influences	Individual
<b><i>PERCEIVED SUPERVISORY FAMILY SUPPORT (PSFS)</i></b>	Survey responses	Organizational Influences	Individual
<b><i>JOB SATISFACTION (JS)</i></b>	Survey responses		Individual
<b><i>INTENTION TO LEAVE (ITLS)</i></b>	Survey responses		Individual
<b><i>WORK FAMILY CONFLICT (WFC)</i></b>	Survey responses	Individual Influences	Individual
<b><i>WORK FAMILY ENRICHMENT (WFE)</i></b>	Survey responses	Individual Influences	Individual
<b><i>ATTITUDES TOWARDS WOMEN SCALE (ATWS)</i></b>	Survey responses	Sociocultural Differences	Individual
<b><i>PROFESSIONAL IDENTITY AND VALUES SCALE (PIVS)</i></b>	Survey responses	Individual Differences	Individual

**Table 4. Participant Scores on Survey Scales**

	Scale Range	Meaning of Score	Participant Scores mean, SD, (range)	ITLS ROC Cutoff	JSS ROC Cutoff
<b>Intention to Leave Score</b>	7-28	↑ scores indicates a > desire to depart the profession	11.3 ± 3.8 (7 -28 )	N/A	N/A
<b>Job Satisfaction Score</b>	20-100	↑ scores indicates ↑ JSS	73.5 ± 10.8 (36 – 100)	N/A	N/A
<b>Worktime Control</b>	1-6	↑ score indicates a > perception of WTC	2.9 ± 0.8 (1-5)	2.8	2.8
<b>Perceived Organizational Family Support</b>	10-50	↑ score indicates a ↑ POFS	30.1 ± 7.3 (10-46)	29.5	28.5
<b>Perceived Supervisor Family Support</b>	14-70	↑ score indicates a ↑ PSFS	47.0 ± 12.4 (14-70)	46.5	48.5
<b>Work-Family Conflict</b>	5-30	↑ score indicates > WFC	15.7 ± 3.8 (6-30)	16.5	14.5
<b>Work-Family Enrichment</b>	5-30	↑ score indicates > WFE	21.3 ± 3.6 (7-30)	22.5	21.5
<b>Attitude towards Women Scale</b>	0-75	Continuum with 0 = traditional, 75 = egalitarian gender ideologies	59.7 ± 9.2 (22-75)	NS	NS
<b>Professional Identity and Values Scale</b>	20-120	↑ scores indicates > PIVS	92.9 ± 9.1 (51-117)	NS	93.5

**\*NS = not significant AUC <.7**



Table 5. Hierarchical Regression Independent Variable Correlations													
	WTC	POFS	PSFS	WFC	WFE	AWS	PIVS	Age	Sex	Hrs/wk	Marital	Family	Org
WTC	1	.481**	.367**	-.182**	.249**	-.051	.189**	.143*	-.072	-.168**	-.165**	.216**	-.020
POFS	.481**	1	.706**	-.295**	.457**	.081	.224**	-.022	-.041	-.090	-.096	.095	.044
PSFS	.367**	.706**	1	-.260**	.437**	.006	.208**	-.071	.007	-.109	-.034	.060	.041
WFC	-.182**	-.295**	-.260**	1	-.372**	-.191**	-.267**	.032	-.061	.190**	-.052	.106	-.050
WFE	.249**	.457**	.437**	-.372**	1	.139*	.321**	-.062	.078	-.078	-.116*	.057	-.100
AWS	-.051	.081	.006	-.191**	.139*	1	.227**	-.157**	.345**	-.045	.069	-.140*	-.035
PIVS	.189**	.224**	.208**	-.267**	.321**	.227**	1	.149*	.053	-.039	-.145*	.122*	-.001
Age	.143*	-.022	-.071	.032	-.062	-.157**	.149*	1	-.283**	-.037	-.259**	.482**	-.043
Sex	-.072	-.041	.007	-.061	.078	.345**	.053	-.283**	1	-.182**	.227**	-.285**	-.013
Hrs/wk	-.168**	-.090	-.109	.190**	-.078	-.045	-.039	-.037	-.182**	1	.014	-.064	-.022
Marital	-.165**	-.096	-.034	-.052	-.116*	.069	-.145*	-.259**	.227**	.014	1	-.444**	.110
Family	.216**	.095	.060	.106*	.057	-.140*	.122*	.482**	-.285**	-.064	-.444**	1	-.101
Org	-.020	.044	.041	.050	-.100	-.035	-.001	-.043	-.013	-.022	.110	-.101	1
** Correlation is significant at the 0.01 level (2-tailed)													
* Correlation is significant at the 0.05 level (2-tailed)													

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

Variable	$\beta$	t	$sr^2$	R	$R^2$	$\Delta R^2$
<b>Step 1</b>				.137	0.19	.019
Age	-.025	-.752	.00			
Sex	.152	.298	.00			
Marital Status	.287	.848	.00			
Family Status	-.305	-.492	.00			
NCAA Div	.103	.430	.00			
Hrs/wk	.005	.230	.00			
Org Structure	-.209	-.449	.00			
<b>Step 2</b>				.463	.215	.196
Age	-.032	-1.076	.00			
Sex	.337	.724	.00			
Marital Status	.185	.602	.00			
Family Status	-.364	-.643	.00			
NCAA Div	.130	.600	.00			
Hrs/wk	-.009	-.503	.00			
Org Structure	-.288	-.682	.00			
WFC	.240	3.909**	.05			
WFE	-.294	-4.501**	.06			
PIVS	-.003	-.113	.00			
<b>Step 3</b>				.516	.267	.052
Age	-.039	-1.334	.00			
Sex	.270	.595	.00			
Marital Status	.125	.418	.00			
Family Status	-.206	-.372	.00			
NCAA Div	.174	.828	.00			
Hrs/wk	-.013	-.749	.00			
Org Structure	-.104	-.252	.00			
WFC	.206	3.411*	.04			
WFE	-.192	-2.801*	.03			
PIVS	.005	.204	.00			
WTC	-.115	-.384	.00			
POFS	-.048	-1.117	.00			
PSFS	-.051	-2.172*	.01			
<b>Step 4</b>				.537	.288	.021
Age	-.033	-1.137	.00			
Sex	-.085	-.182	.00			
Marital Status	.126	.426	.00			
Family Status	-.193	-.353	.00			

NCAA Div	.226	1.082	.00
Hrs/wk	-.012	-.687	.00
Org Structure	-.040	-.098	.00
WFC	.226	3.761**	.04
WFE	-.197	-2.910*	.03
PIVS	-.008	-.311	.00
WTC	-.033	-.110	.00
POFS	-.065	-1.492	.00
PSFS	-.042	-1.807	.01
AWS	.063	2.644*	.02

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***N = 251 \*\*  $p < .001$ , \*  $p < .05$***

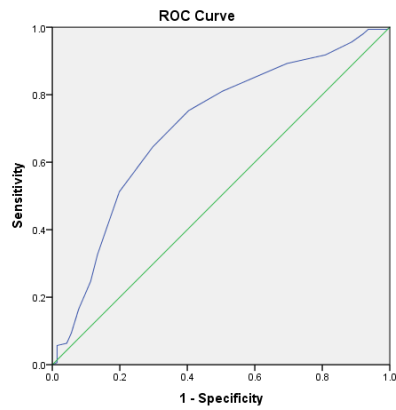
**Table 7. Summary of Hierarchical Regression Analysis for Variables Predicting Job Satisfaction Score**

Variable		$\beta$	t	sr <sup>2</sup>	R	R <sup>2</sup>	$\Delta R^2$
<b>Step 1</b>					.248	.062	.062
	Age	-.041	-.425	.00			
	Sex	.466	.311	.00			
	Marital Status	-2.504	-2.449	.02			
	Family Status	.453	.251	.00			
	NCAA Div	.141	.203	.00			
	Hrs/wk	-.127	-2.208*	.02			
	Org Structure	1.744	1.273	.00			
<b>Step 2</b>					.662	.439	.377
	Age	-.008	-.103	.00			
	Sex	-.880	-.747	.00			
	Marital Status	-1.479	-1.845	.00			
	Family Status	.011	.007	.00			
	NCAA Div	-.024	-.045	.00			
	Hrs/wk	-.105	-2.295*	.01			
	Org Structure	1.736	1.616	.00			
	WFC	-.355	-2.225*	.01			
	WFE	1.345	7.985**	.15			
	PIVS	.306	4.718**	.05			
<b>Step 3</b>					.827	.685	.246
	Age	.022	.378	.00			
	Sex	-.390	-.437	.00			
	Marital Status	-1.061	-1.752	.00			
	Family Status	-1.062	-.977	.00			
	NCAA Div	-.323	-.782	.00			
	Hrs/wk	-.061	-1.736	.00			
	Org Structure	.615	.754	.00			
	WFC	-.177	-1.456	.00			
	WFE	.681	4.948**	.03			
	PIVS	.233	4.740**	.03			
	WTC	2.013	3.420*	.02			
	POFS	.160	1.883	.00			
	PSFS	.360	7.782*	.08			
<b>Step 4</b>					.828	.685	.000
	Age	.019	.319	.00			
	Sex	-.243	-.262	.00			
	Marital Status	-1.069	-1.763	.00			
	Family Status	-1.085	-.995	.00			

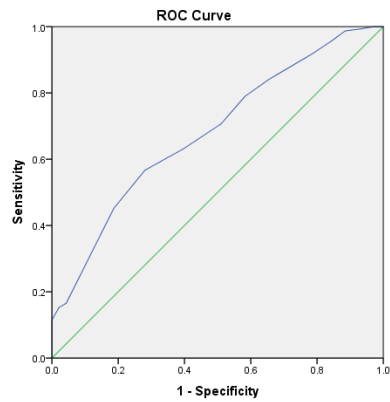
NCAA Div	-.342	-.826	.00
Hrs/wk	-.062	-1.766	.00
Org Structure	.596	.729	.00
WFC	-.183	-1.498	.00
WFE	.683	4.953**	.03
PIVS	.239	4.753**	.03
WTC	1.974	3.328*	.02
POFS	.168	1.949	.00
PSFS	.356	7.558**	.08
AWS	-.029	-.586	.00

***N = 251 \*\* p < .001, \* p < .05***

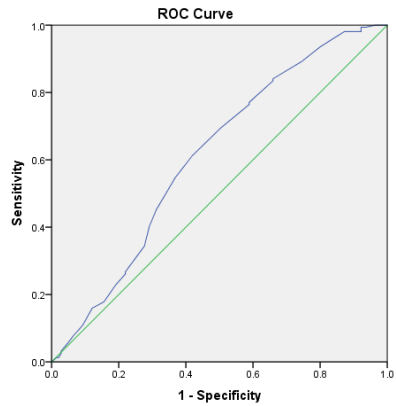
**Figure 1. ROC for Intention to Leave Scores**



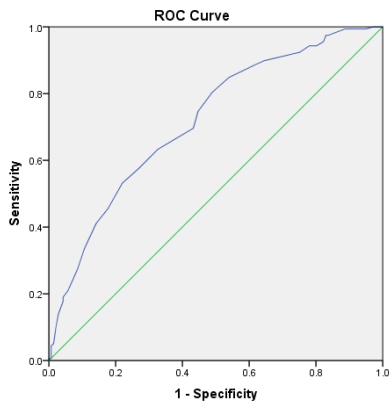
**WFC Score**  
AUC = .706



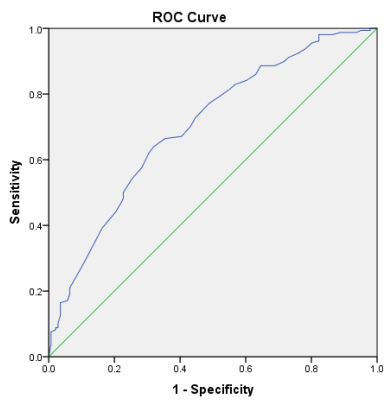
**WFE Score**  
AUC = .681



**WTC Score**  
AUC = .612

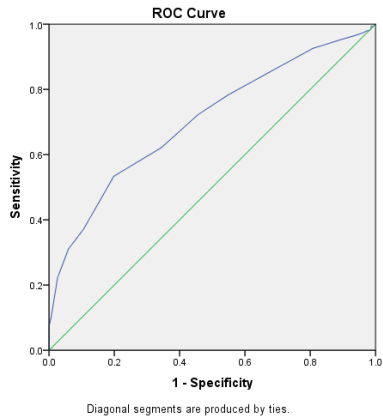


**POFS Score**  
AUC = .719

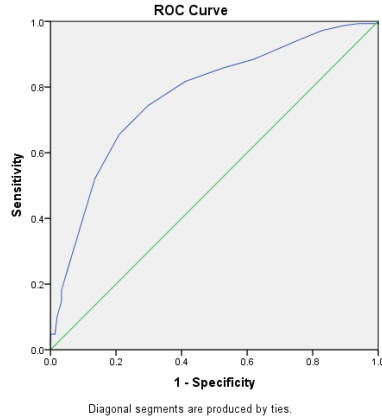


**PSFS Score**  
AUC = .701

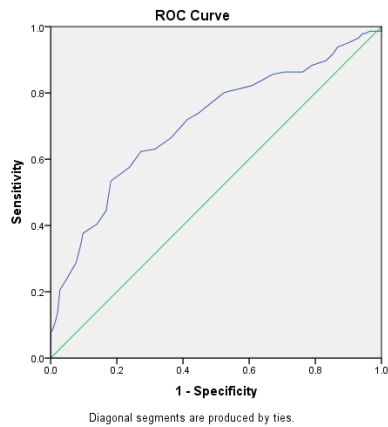
**Figure 2. ROC for Job Satisfaction Scores**



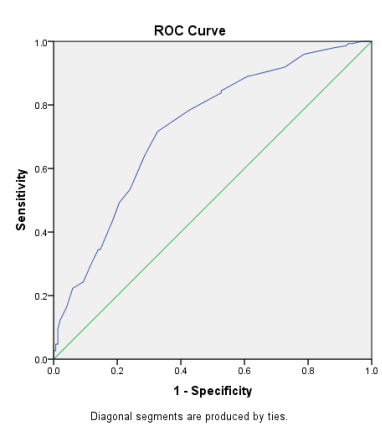
**WFC Score**  
AUC = .705



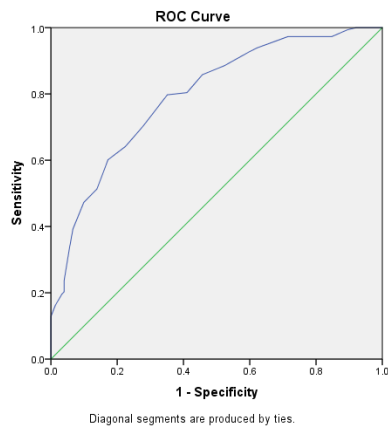
**WFE Score**  
AUC = .773



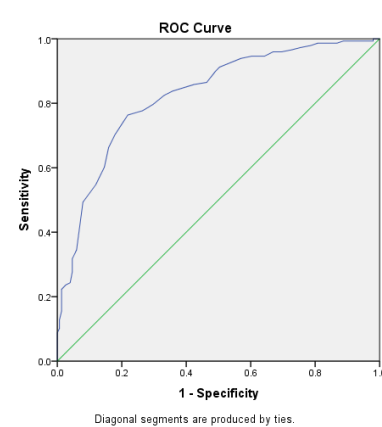
**PIVS Score**  
AUC = .708



**WTC Score**  
AUC = .728



**POFS Score**  
AUC = .794



**PSFS Score**  
AUC = .826

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## CHAPTER V

### MANUSCRIPT III

#### **Multilevel Examination of Job Satisfaction and Career Intentions of Collegiate Athletic Trainers: A Qualitative Approach**

**Context:** The work–life interface is the overlap of work and personal life. This interface can be adverse or it can be advantageous. When the work-life interface is adverse it can cause job dissatisfaction, which could lead to attrition. While research examining the work-life interface in athletic training is plentiful, it is primarily examined utilizing a uni-dimensional approach. There is a need to approach work-life research within athletic training at multiple levels due to the complexity of the work-life interface.

**Objective:** To evaluate the work-life interface of collegiate athletic trainers through a multilevel lens; specifically related to their perceptions of job satisfaction and intention to leave.

**Design:** Semi-structured one-on-one phone interviews

**Setting:** Certified athletic trainers employed in the college/university clinical setting.

**Patients or Other Participants:** 30 athletic trainers (14 men, 16 women) employed in the NCAA Div I, II, III, or NAIA setting volunteered. Average age of participants was  $33 \pm 8$  with  $10 \pm 8$  years of experience.

**Data Collection and Analysis:** Semi-structured phone interviews were digitally recorded and transcribed verbatim. Data analysis utilized principles of general inductive approach. Credibility was maintained using peer review and multiple analyst triangulation.

**Results:** Themes linked to individual level factors included: *Athletic Identity*, *Intrinsic Motivation*, and *Conscientiousness & Extraversion*. Organizational level factor themes included: *Inadequate Staff Size*, *Inequity between Hours and Salary*, and *Perceived Work Schedule Autonomy*. *Traditional Gender Ideologies* and *Egalitarian Gender Ideologies* related to sociocultural level factors. Both organizational and sociocultural level factors appeared to influence participant's job satisfaction and career intentions.

**Conclusions:** While there were similarities between individual level factors among collegiate athletic trainers, these factors alone do not account for job satisfaction or career intentions. Continued multilevel examination of the work-life interface is warranted to better understand issues related to retention and attrition.

**Keywords:** gender ideology, work-life enrichment, organizational practices

**Word Count:** 297

## INTRODUCTION

Working professionals want to manage the responsibilities of their workplace and the obligations associated with their personal and family lives. The work–life interface is the junction of work and personal life. There are numerous aspects of one's personal life that can intersect with work including family, recreation, and health. It is important to understand that the work-life interface is bidirectional meaning that work can interfere with private life, and private life can interfere with work. This interface can be adverse in nature or it can be advantageous. The struggle that arises is often referred to as work-life conflict, and research related to work-life conflict from a uni-dimensional approach is extensive. The term work-life conflict is preferable to work-family conflict as it acknowledges that individuals who are not married or do not have children or other representative family roles can still experience conflict between their work and personal lives. We know that work-life conflict may cause job dissatisfaction,<sup>1</sup> which in turn could lead to desire to depart the profession. Multiple studies examining various athletic professions have found that work-life conflict is present and that it is positively correlated with withdrawal intentions.<sup>2-4</sup>

Existing athletic training research repeatedly demonstrates that particular aspects of the profession, such as travel demands, irregular and long hours, perceived inadequate compensation, stresses imposed by supervisors, and schedule changes create challenges for athletic trainers and may subsequently negatively impact the work-life interface.<sup>5-7</sup> Adverse experiences related to the work-life interface for the athletic trainer are similar to other professionals within the sports industry including coaches<sup>8-10</sup> and sports informational individuals.<sup>11</sup> Athletic trainers are unique to the

athletic organization however in that they are also healthcare providers, which brings with it the stresses and responsibilities associated with patient care.

Within athletic training the majority of research examining characteristics and outcomes of the work-life interface have focused on the female perspective<sup>5,12-15</sup> due to hypothesized sociocultural factors that may impede career trajectory or impact career intentions. Existing gender norms have the potential to influence women's ability and desire to maintain both work and family responsibilities and subsequently they report the need to constantly prove their worthiness.<sup>3</sup> Despite a strong focus on the female athletic trainer, research has not identified a gender difference related to experiences of work-life conflict.<sup>7</sup> Mazerolle Goodman and Pitney<sup>16</sup> found that work-life conflict was a causative factor for male athletic trainers to depart the Division I collegiate clinical setting. Because the work-life interface has traditionally been viewed as a women's issue the male perspective on work and family responsibilities are less understood within athletic training.

The need to approach work-life research within athletic training at multiple levels is essential as the complexity of the work-life interface within sport has been acknowledged.<sup>8</sup> Kozlowski and Klein<sup>17</sup> discussed the importance of keeping an eye on the parts in order to better understand the whole as a way of justifying multilevel model approaches to research. Dixon and Bruening<sup>8</sup> identified individual, organizational, and sociocultural factors and outcomes in their examination of the work-life interface. Individual level factors include characteristics such as personality, age, sexual identity, coping mechanisms, race, and gender. Research has consistently demonstrated that individuals differ in their experiences related to work and personal domains as well as



the intersection between those roles.<sup>18-20</sup> Organizational level factors relate to the ways in which workplace structures such as policies and practices interact with employee behavior to promote enrichment or create conflict.<sup>10,18</sup> Sociocultural level factors examine societal norms and values associated with work and family that have the ability to shape how professionals should experience their dual roles.

Examination of sociocultural level factors, similar to work-life conflict research tends to focus on the female perspective. Dixon and Bruening<sup>10</sup> outlined the three barriers women coaches face based on traditional gender ideologies: 1) opportunities to enter and remain in a male-dominated profession are limited and women must then show they belong in order to stay, 2) women typically have heightened responsibilities for family and it is women more often than men who disrupt their careers to have children or leave work to take care of personal responsibilities, and 3) traditional gender expectations put disproportional pressure on women in regards to family and work which may create feelings of guilt and shame. While athletic training is not a male dominated profession (National Athletic Trainers' Association (NATA) membership statistics<sup>21</sup> reveal that 56.5% of all members are women), these barriers precipitated by sociocultural factors may explain why female athletic trainers tend to depart the profession around the age of 28.<sup>22</sup> While membership statistics reveal more than half of certified members are female, Acosta and Carpenter<sup>23</sup> reported that 32.4% of head athletic trainers employed in the collegiate level were female, and only 19.5% of head athletic trainers at the National Collegiate Athletic Association (NCAA) Division I setting were female. This conflicting number of females employed in positions of leadership within sports medicine departments is troubling and highlights that the pipeline theory

approach to explaining this concern is not acceptable. The pipeline theory suggests that increasing the number of women in male-dominated fields should lead to more equity in the labor market and therefore lead to more leadership positions for women.<sup>24</sup> This is clearly not the case for athletic training as an equal distribution of male and females are employed at the NCAA Division I setting has not led to an increase in the number of females filling the leadership role of Head Athletic Trainer. Traditionally women have been viewed as the primary caregivers and exhibiting communal characteristics, whereas men have been perceived as agentic breadwinners. However, more women have entered and remained in the work force and men are taking on more household responsibilities. The same study that revealed the trend of women departing the profession also found that men tend to shift to the secondary clinical setting around the age of 40.<sup>22</sup> Therefore, it becomes important to examine the impact of these sociocultural factors on both men and women.

Multilevel examination is necessary to better understand and navigate the athletic training profession. There is a need to recognize the gendered nature of work and personal responsibilities within the work-life interface because the life course of individuals varies. While preference or choice at the individual level may appear to trigger a person's departure from the profession, the attrition may be prompted by the organizational or sociocultural context in which the individual is embedded, or a combination of these factors. Additionally, a multilevel analysis allows for phenomena to emerge from the bottom-up<sup>25</sup> as interaction between all levels can be examined rather than being limited to each separate level from the top down.

Based on the importance of a multilevel model in examining the work-life interface within athletic training the purpose of our study was to examine and develop a better understanding of the factors that may influence collegiate athletic trainers' job satisfaction and career intentions. Our study will be guided by the following research questions:

1. What individual factors influence the job satisfaction or career intentions of collegiate athletic trainers?
2. What organizational factors influence the job satisfaction or career intentions of collegiate athletic trainers?
3. What sociocultural factors influence the job satisfaction or career intentions of collegiate athletic trainers?

## **METHODS**

This study was part of a larger study that examined the career intentions of collegiate athletic trainers from a multilevel perspective.<sup>26</sup> In this exploratory study, we sought to examine what perceived individual, organizational and sociocultural level factors influence career intentions and job satisfaction. A qualitative lens was used to address the exploratory purpose and research questions as it provided the most flexibility and the chance to explore the experiences of collegiate athletic trainers.<sup>27</sup> Our study was approved by the Institutional Review Board before data collection was initiated.

### **Participants**

As part of the larger study<sup>26</sup> all participants completed an online survey and were asked to provide their contact information via a secondary link (survey responses could

not be linked to personal information) in they were interested in participating in phone interviews. Inclusion criteria consisted of: 1) employment in the college or university setting. Data saturation guided recruitment of participants.<sup>28</sup> Participants were excluded from the study if 1) they were graduate assistant or 2) intern ATs. The participants in this study (n = 30) identified as athletic trainers employed in NCAA Division I, II, III or NAIA colleges or universities. Athletic trainers employed in the college/university setting were purposefully chosen due to the demanding nature of the setting and because they represent the largest population of certified members of the National Athletic Trainers' Association) NATA.<sup>21</sup>

All participants were currently NATA members. Our participants were  $33 \pm 8$  (23-59) years old and had been certified for  $10 \pm 8$  (2 - 33) years with  $6 \pm 4$  (1 -15) years at their current position. They worked an average of  $54 \pm 9$  (20 – 70) hours a week and were contracted  $11 \pm 1$  (9 – 12) months of the year. The average number of full time athletic trainers on our participants' staff was  $6 \pm 4$  (2 – 18). Participants identified as male (n = 14, 47%) and female (n = 16, 53%). The majority of our participants were married (n = 17, 57%), and did not have children (n = 19, 63%). All of our participants who reported having children also self-reported being married. Demographic information in addition to participant pseudonyms can be found in Table 1.

### **Procedures and Data Collection**

We contacted the NATA to provide a list of athletic trainers currently employed in the college or university setting. Emails were sent to 2000 certified members of the NATA who were identified as working in the collegiate clinical setting. Potential participants were asked to complete an online survey housed on Qualtrics

(<https://www.qualtrics.com/>) and at the end of the survey were asked to click on link that would allow them to provide contact information if they were interested in participating in a phone interview. It was not possible to match survey responses with personal contact information as participants were automatically linked to a separate survey to enter their contact information. All phone interviews were completed by the lead author (A.B.C.) and were scheduled at the convenience of the participant. Data saturation guided participant recruitment. The interview guide (Appendix A) was developed to reflect the research agenda and incorporated questions derived from theories and concepts from the literature related to personality,<sup>29,30</sup> job satisfaction,<sup>31,32</sup> intrinsic motivation,<sup>33</sup> coping,<sup>34</sup> gender perceptions and ideology,<sup>35</sup> work hours and scheduling,<sup>36</sup> scarcity theory,<sup>37,38</sup> and career intentions.<sup>22</sup> An athletic training scholar with expertise in the content area of work-life balance and organizational structure established content validity by reviewing the interview guide. The feedback gained during the peer review process was used to make small adjustments to the instrument including wording and order of the questions.

### **Data Analysis and Credibility Procedures**

Analysis procedures followed the general inductive process, a conventional method used in health and social science research as described by Thomas<sup>39</sup> and Creswell.<sup>27</sup> This manner of analysis was selected to help uncover the most dominant themes from the data as it related to the specific aims of the study. Data analysis was guided by the following steps as explained by Thomas:<sup>39</sup> 1) preparation of the raw data and data cleaning consisted of printing each individual raw data file (each interview), 2) multiple read-throughs of the raw text until researchers were familiar with its content, 3) creation

of categories from actual phrases or meanings within text segments, 4) category reduction by decreasing overlap and redundancy among categories, and 5) continuing revision and refinement of the category system. The purpose of this process is to create a small number of categories that in the researchers' mind are considered to be the most important themes based on the research questions and evaluation objectives.<sup>39</sup> Multiple analyst triangulation and peer review were incorporated as steps to ascertain data credibility. The first and second author followed the specific steps of the general inductive process independently. Once each author completed the analysis process independently they reviewed their findings. During this review authors discussed the categories and emergent themes, which included the label assigned to each theme and data supporting the emergent themes. Additionally a peer with extensive qualitative experience and research expertise in the field of athletic training related to professional development, administration and management, and professional socialization independently reviewed the data and verified the emergent themes. Bracketing, consistent with the phenomenological method, was used.<sup>40,41</sup> Researchers identified their own personal beliefs and experiences regarding professional commitment and articulated them in writing to identify if biases entered into data analysis. It was important for researchers to identify their own beliefs to ensure data were not analyzed in a prejudiced manner. Once identified, it became clear if these biases entered into the analysis of data. Bracketing was helpful in establishing credible results, as the authors are confident no biases were presented in the final analysis. In this study, most of the themes arose from existing literature on the work-life interface with allowance for openness and flexibility to other possible themes.<sup>42</sup>

## RESULTS

Predictors of job satisfaction and career intentions emerged from our examination of the data at each factor level (Figure 1). We will present the emerging themes for each factor level separately below with supporting quotes.

**Individual Level Factors** We were able to identify three themes related specifically to the individual level factors: 1) *Athletic Identity*, 2) *Intrinsic Motivation*, and 3) *Conscientiousness & Extraversion*. While our participants had many individual level factors in common, these factors did not appear to play a decisive role in job satisfaction or career intentions.

**Athletic Identity** Athletic identity is a concept in which individuals identify with the role of athlete and this self-identification impacts how they view themselves and impacts the importance of athletics in an individual's life.<sup>43</sup> The majority of our participants talked about how prior involvement in sport led them to a career in athletic training. As Brady said when asked what drew him to the athletic training profession:

“When I went to college I played baseball and also decided that I wanted to try and do athletic training, fortunately the level I was at I could play baseball and do athletic training...I feel like I got to experience both sides, and I really, after doing that realized I wanted to stay within the sports realm and be able to help people.”

Mia similarly said, “to be honest the interest in athletic training is very similar to what most athletic trainers will tell you. I was an athlete growing up.” As Jamie said, athletic training provides the “opportunities to be on the sidelines, or involved with the athletics side of it.” Eugenia told us “I’ve been an athlete my whole life, even when I was in grade

school I was always playing sports.” Jackson told us “I’ve just always been active in sports.” When describing her initial attraction to athletic training Shirley revealed:

Back in the day, kind of like the typical story that happened, I played athletics in high school. I was a three-star athlete. My family was all very athletic. I thought about going into medicine. I knew I wanted to do something around athletics...I was kind of drawn to the athletics side of things and the medicine side and so that’s how I got into athletic training. It was a way to marry those two, those two things together.

For many of our participants it was their involvement in athletics that introduced them to the athletic profession. As Yuri said, “I was very interested in athletic training after I injured myself and I used to play tennis.” Grant described himself as a hockey player:

I went to college in Southern Minnesota to play hockey actually at a D3 school that also had a really good athletic training program...But from there I got really interested in athletic training because I think like most athletic trainers [there was] a lot of times [where it was] the athletic trainer and myself [because I had] a number of surgeries. I didn’t quite know what they were before. Where I came from in [state name], I mean there’s athletic training but it’s not really a well-supported profession... and it wasn’t until I got to [play] prep hockey up in [state name] that I had...that’s the first time I actually had a full time athletic trainer.

While none of our participants are still competitive athletes many discussed the importance that athletics and physical activity still play in their lives. John tells us, “when I get free time, we have a full gym in our athletics facility, so I use that.” Hayley describes herself as, “a pretty active person. I like to run a lot, I like to play sports.”



Elizabeth says, “I really enjoy athletics...I’m an active person. I’m in the gym or doing something active probably six or seven days a week.” Aaron shares, “oh for fun, oh I love being active. I love playing sports, working out, running, what have you, I’m willing to try different sports.”

***Intrinsic Motivation*** Intrinsic motivation refers to behaviors that are guided by internal rewards, meaning that the motivation to take part in a behavior develops from within the individual because it is intrinsically and innately rewarding.<sup>44</sup> Intrinsic motivation, for participants in this study, came from the reward of knowing they were key to others’ success and they are driven to do something because of the fun of it or because they believe it is the right thing to do. Richard explained, for example, that it’s “the everyday challenge” that motivates him. He goes on to say, “I think to me it’s yeah, that’s kind of the ultimate key, the challenge. And it makes the challenge of what can I do to get this athlete the best they can possible the quickest.” Will describes himself as, “somebody that genuinely enjoys caring for others and who likes this feeling of...having a part of other people’s success.”

Most of our participants were intrinsically motivated by the athletes they work with. Khloe stated, “when athletes are injured then the primary motivation is to get them back on the field because that’s what they love to do.” Jaden told us, when asked what motivates him in his career, See[ing the athletes] succeed on the field, and see[ing] them succeed in life, and you know, I hope that if they do have to come see me that what I teach them isn’t just about their body it’s about succeeding in life.” Elizabeth responded, I like the success when the athletes do well, and I feel for them when they

get defeated, or when they don't do well.” When explaining her motivation Trisha responded:

I think for me the motivating factor is the idea or the reality that as an athletic trainer someone is coming to you when they are injured, when they are ill, and you have an opportunity to provide healthcare to that individual. You have the opportunity to help that problem, whether it's a musculoskeletal injury or they're asking you about headaches that they've been having, or some fungus that's growing on their toe. They're coming to you looking for an answer and I think that's a pretty powerful responsibility that has to be respected and dealt with appropriately. But I think that's something that's really awesome about being an athletic trainer.

Kristen described the reward she receives helping athletes work through their injuries and returning them to participation:

Being an athletic trainer now for a couple years I think what's important is, or what motivates me is getting to work with the athletes. They don't really know much about, sometimes it's their first injury they don't know much about [the] injury process. I think it's really rewarding. It motivates me to really help them through that process. It's rewarding to see athletes when they get hurt and they climb over all those hurdles or maybe their setbacks and return to play and succeed well, or to their standards in whatever sport that they play.

Other participants echoed these sentiments. Matt said, “trying to help [the athletes] to better themselves and be a better athlete and better students and a better person

definitely motivates me.” Individuals driven by intrinsic motivation do not seek external praise and rewards. Elizabeth explained this perfectly when she said:

Sometimes...when I look at someone and how they overcame an injury and they played really well in one game, I look at it and say, ‘I kind of had a hand in that success of that happening.’ So that makes me feel good. And even if I don’t always get all the praise or the credit for it, or even some of it, I feel good anyway that that was partly me...that’s what my job is all about I would say.

***Conscientiousness & Extraversion*** We asked participants to describe themselves, and overwhelming their answers represented that they believed they were conscientiousness and/or extraverted. These characteristics are two of the five personalities described in the Big 5 personality inventory.<sup>45</sup> Individuals who demonstrate high levels of conscientiousness are efficient time managers, well-organized, and careful planners. They typically demonstrate lower levels of conflict because they are effective with time management.<sup>46</sup> Elizabeth told us that she tries to manage stress by “planning ahead,” demonstrating her organizational and time management skills. Dexter explained how he “sets goals” for himself to stay motivated. Jamie described herself as “organized, attention to detail, [and] very conscientious.”

Extraverted individuals are outgoing, energetic, seek the company of others and demonstrate positivity. Extraverts typically experience less fatigue and have more energy for multiple roles.<sup>46</sup> Exhibiting these qualities Aaron describes himself as “outgoing” and “a team player in everything that I do.” Amy who also describes herself as someone who is “happy to be surrounded by other people,” “energetic,” and likely to “get along with most people” would also be considered extraverted. Ginger displays

classic extravert characteristics and describes herself as “an extremely outgoing individual” who “really enjoy[s] connecting with [the] athletes” through using “a lot of humor.”

Many of our participants displayed both of these personalities in combination. Brady told us he is “kind of self-motivated...I tend to put my nose down and do things regardless of what is going on around me,” and also told us how his “social life is very big.” Additionally he said “I’m very friendly, easy going. Sometimes I can be fairly anal and obsessive compulsive, so organized, but sometimes a little overkill” In these descriptions of himself Brady displays both conscientious and extraverted personalities. Eugenia stated that she is “pretty energetic and goal oriented...certainly nurturing,” which would also classify her as a conscientiousness extraverted person.

**Organizational Level Factors** Organizational level factors appeared to impact our participants’ perceptions of job satisfaction most notably. We were able to identify three emergent themes from our participants’ responses: 1) *Inadequate Staff Size*, 2) *Inequity between Hours and Salary*, and 3) *Perceived Work Schedule Autonomy*

***Inadequate Staff Size*** The athletic training staff size was something that was brought up consistently by our participants and appeared to play a substantial role in their job satisfaction. When asked if there was anything he would change about his current job, Jaden responded, “I would definitely add more staff members to our staff. I would say we are stretched way too thin, you know, with athletes we have.” Jeff said, “with six athletic trainers, you know, we’re still understaffed.” Similarly, Howard said, “ideally... I would like to see, maybe one or two more staff members hired just to kind of

alleviate some of the pressure in the hours that we worked.” Kristen simply stated, we probably need a fourth athletic trainer.”

Our participants believed that the inadequate staffing impacted their ability to succeed in their positions. In describing his current position at an NAIA school Rob told us, “we're probably close to negligently understaffed, I mean it's pretty crazy. Being in the fall time, I mean I know it's hard to even remember an athlete's name let alone what they came to see me for a couple days prior.” Will expands on this idea when we ask what his biggest stressors at work are:

Having less staff, having five staff members in 17 sports. There are times where I feel that some of our student athletes are undeserved athletic training need wise because I'm on the road today with the men's basketball team, so the men's soccer team [who I also provide care for], I'm not there to meet their needs. I have other staff members that will pick up the overload as I do when they travel. But, still the rapport that you try and we work hard to create with our groups is getting, it gets broken somewhat in these types of things. So, that's hard.

Rob reiterated this sentiment:

We probably need two more athletic trainers. So, quick math and it gets kind of, it gets pretty scary. I know personally I have not been able to perform at a standard that I would like, because it's just not possible....There's just a lot of things professionally that just seem to fall to the wayside because there just doesn't seem to be enough time.

***Inequity between Hours and Salary*** Participants told us that they did not feel they were receiving adequate financial compensation for the hours they were working or

the responsibilities they had. This perception of inadequate pay appeared to impact both their job satisfaction and career intentions. Yuri, a Division I athletic trainer who told she does not see herself remaining in athletic training said, “I just wish that...[we] get paid a little more because we do carry liabilities by treating other athletes or clients.” She also said, “I work quite a bit without really any offseason. So I’m pretty much on the road ten months of a year and I also work 60-80 hours a week.” “A better salary, a better lifestyle” is what Yuri said she would change about her current position. Amy, who is also employed in the Division I collegiate setting told us, “the only thing that would [make me consider leaving the athletic training profession] would be the intense amount of work versus the pay.” Hayley echoed this when she said, “We don’t get paid for working on the weekend, so we just get basically paid for forty hours a week, and it’s a flat salary.”

Perceptions of inadequate salary were not isolated to the Division I setting or among women. Dexter, a Division III athletic trainer considers leaving the collegiate setting to work as a physician’s extender because “the hours are a little more stable” and “the salary might be a little bit better too” Kristen who is employed at a Division III university says, “I wish I got paid a little bit more for what I do.” Jeff explained that he thinks athletic trainers should work on an hourly rate to highlight how many hours they actually put in to their work:

You know instead of paying us on a salary, you know [pay] us hourly. I think that’s why people don’t realize how much we actually do. It’s because we are on the salary, so you know, you put us hourly for a year and I think a lot of people will change their tune toward the athletic trainer population.

Rob, explained how his salary was not reflective of the effort that he puts into his work:

[In] my current job whether I'm just doing amazing with athletes, or you know, the extra stuff in regards to administrative things, you know, working on rehab plans, there really is not, no matter what I do at least in my institution, it's not going to affect my pay, my compensation. Whether I'm just doing awesome or just sitting in my office ignoring athletes it's not going to affect my compensation. So, I think having more control over that would be a good feeling as well.

***Perceived Work Schedule Autonomy*** Many participants told us that they had a semblance of control over their own work schedules, but when pressed their schedules revolved around athletics and the teams they provide medical care for. Amy stated “I have some autonomy over my work schedule. The director of athletic training doesn’t really...micromanage me by any means... So the only thing that I don’t really have control over is like when the coaches do schedule practices. So that’s pretty much how I base my work.” Aaron voiced his opinion over his work schedule control, “I do have some control. But I do try to communicate in advance with coaches and other athletic trainers I work with...So yes I do have control, but at the same token it’s kind of controlled by too many.” Mia says, “I can pretty much to a certain extent structure my workday however I see fit. She goes on, “my ability to leave whenever I want is obviously not something I have any control over because at the end of the day, you know you have to stay until practice is over.” Elizabeth said, “I think I have a lot on influence over my work schedule...I’ve been here 3 years, so I kind of know how the system works.” However, she goes on to say:

That's another frustrating part I think about being an athletic trainer and thinking 'wow I thought I had Sunday off' but now I find out I have practice 1:00PM to 3:00PM...so that kind of ruins my whole day where I had...I was planning on doing this or driving here or going to meet this person.

The last minute schedule changes, or lack of schedules all together appeared to create some job dissatisfaction for our participants. Laura tells us that if there was one thing she could change about her job it would be "just getting schedules on time. I have practice tomorrow but I don't know what time."

Additionally, the majority of the athletic trainers had vacation time built into their contracts. However, they expressed the limited flexibility in which they felt comfortable utilizing that time. As Amy straightforwardly stated, "I'll take [vacation] when it doesn't conflict with the sports schedule." Elizabeth said, "regarding vacations...I think that the summers are obviously when we are encouraged to take vacations because those are the easiest times." Brady says, "I can take vacation essentially whenever I want to. Obviously within reason, not when my sports are traveling." Regarding her vacation time Jamie reports, "we accrue [vacation time]. I couldn't tell you how much every month and then typically our vacations are happening, for me, kind of May through July. That's when my sports are kind of at their lowest amount of time involvement."

**Sociocultural Level Factors** We found noticeable relationships between our participants' gender ideologies and career intentions and this relationship was reliant on participant sex (Figure 2). *Traditional Gender Ideologies* and *Egalitarian Gender Ideologies* emerged from our data.



***Gender Ideology*** We asked our participants their opinions regarding traditional societal gender norms that women are viewed as the “caretakers” and men are viewed as the “breadwinners”. Based on the data we were able to split our participants into two groups based on their responses: 1) individuals with traditional gender ideologies and 2) individuals with egalitarian gender ideologies. Women who agreed with the traditional gender roles and men who did not agree with these societal driven norms indicated their intentions to depart the collegiate clinical setting or the profession altogether. Women who did not agree with the traditional gender roles and men who did believe in them indicated their intentions to remain in the collegiate clinical setting.

### ***Traditional Gender Ideologies***

*Women with Traditional Gender Ideologies:* Khloe, a female Division I athletic trainer told us, “I would say I overall agree [that women are typically the caregivers and men are typically the breadwinners]...And I think my primary reason for saying that is because that was what was modeled for me.” When we asked Khloe where she saw herself professionally in the next 5-10 years she responded,

I honestly don’t know. I’m kind of at a point where last year was very rough for me. I really had a hard time and I was thinking about getting out of the collegiate setting, and just kind of being done with it all...I think that could be a possibility in the next five or ten years. I would be out of the collegiate setting...I would imagine I’m going to move on to something different that will allow me to have more life balance.

Eugenia, another Division I athletic trainer who works with club sports had a similar response. She told us, “Well I think it’s very common that women are more caretakers

than men, just naturally.” She also reported that she is currently applying to graduate school for physical therapy or physician assistant to “advance her career.” She also said, when asked where she saw herself professionally in the future:

Well I'm trying to apply to grad school. So if I get accepted and get through that I guess my ultimate goal would probably be an orthopedic physician's assistant. Just having a little bit more control...[and] being able to work for myself and not under another physician or under a physical therapist.

Hayley, a Division I athletic trainer who reported that she is currently working towards her doctorate so that she can enter the academic side of athletic training said, “I think overall from what I've seen...females do tend to be a little more nurturing, especially athletic training wise...The female athletic trainers are a little more nurturing than the male ones.” These parallels between traditional gender ideologies and career intentions expanded past the Division I setting. Trisha, a Division II athletic trainer revealed:

I kind of view people as a person not necessarily with any sort of stereotype... [but] I do kind of look at historically, even though things are changing, I think from a woman's standpoint I think that it's kind of hardwired in us as [a] potential to be mothers. I think that that's something that is just innate in us and that society has had this image for a long period of time.

Trisha went on, describing her future career intentions:

I think professionally my goal is definitely to continue on [with] school. Most likely go back to get my doctorate...Because I see myself transitioning to a full time faculty member or at least that's my goal...I would say more likely education route, is what I truly see myself in...As much as I hate to say it, because I believe

that you can be a female and be an athletic trainer, and have a family, and have it all, I think that's definitely something that affects me. I've always [thought] in the back of my mind that I don't necessarily want to have kids. But I know that I do. One of the reasons why I don't want to is because I know it's going to change my professional side and I don't want to think [because] I worked hard [that by] not having kids and no longer being an athletic trainer or changing my responsibilities is a negative thing.

Elizabeth, who currently works in the Division II setting and believes that the traditional gender ideologies are “mostly true” told us that in a few years when she considers having a family she’s not sure where she’ll be professionally. “I’m at a point in my career where I could go a lot of different places...I’ve thought about working in an orthopedics office as an athletic trainer...a lot of it decides on having a family, and you know, when we decide to have children.”

*Men with Traditional Gender Ideologies:* Jackson, who is currently employed in the Division I setting told us that he agrees with the gender ideology that women are typically the caregivers and men are typically the breadwinners. He said, “I guess that’s just how society has been working...I don’t want to say brainwashed, but that’s how society has shown us what the genders do.” Jackson also told us that he sees himself, “continuing in athletic training...Hopefully either as an assistant or an associate athletic trainer...with Division I athletics.” Matt, a Division III athletic trainer with 32 years of experience and five children, who agrees with the traditional gender roles told us, “I see myself probably in the same place as far as this position. I have a lot of things, you know I have an 11 year old I need to get through school...” Nick, currently employed in

the Division III collegiate setting who has aspirations of becoming a head athletic trainer told us, “I would say in our society in general, yes women have always been the caregivers and men have been the breadwinners.” Dexter, a Division III athletic trainer who would like to stay working in the small college setting tells us in regards to gender ideology:

I would say classically in American culture, I would say that I would agree with that...I guess if you think about like traditional American society, of kind of just like America in general...mom kind of stays home and dad goes to work, comes home, dinner's ready, kids are all well behaved and all that kind of stuff.

Dexter did acknowledge that things may be starting to change in regards to gender roles because women are starting to take more of a role in the workforce. This potential shift in the traditional gender ideologies is likely why many of our participants do not agree with the traditional gender ideologies.

### ***Egalitarian Gender Ideologies***

*Women with Egalitarian Gender Ideologies:* Our female participants who did not believe in the traditional gender ideologies all wished to remain working as athletic trainers in the collegiate setting. Cecelia, a Division I athletic trainer with two children told us, “I feel like the stereotype is changing. That there's more of an equal collaboration between male and female counterparts in terms of care giving and breadwinning.” When asked where she sees herself in the next 5-10 years Cecelia responded, “where I am right now.” Ginger, a Division II athletic trainer who does not agree that women are typically the caregivers and men are the breadwinners said, “I do not believe that gender defines a singular role.” Ginger also told us that she would “love

to go to another Division II [college]" in the next 5-10 years. Kristen, a Division III athletic trainer said when asked about the traditional gender ideologies:

I would probably disagree with that. I think now... it's a lot more fifty-fifty. I think women can be the breadwinners more than men. I think that women aren't the ones that should be just taking care of the kids, cooking, or cleaning. I think it's more of a fifty-fifty thing now in our generation. I think a lot of it's changed because I think women now we're in different job areas and arenas. There's more opportunities for us to get jobs that weren't readily there twenty years ago. I think that's the biggest thing.

Kristen also stated her desire to remain in the collegiate setting, potentially as a head athletic trainer. Mackenzie, a Division II athletic trainer who is currently undergoing IVF treatments to try and get pregnant told us she did not believe in the traditional gender roles and that she sees herself as the "head athletic trainer here." Similarly, Eva has professional goals of becoming a head athletic trainer told us, "I guess at the level of society that I'm in I would have to say that I disagree with that...In a family the husband and wife both have to work in order to have things that they need to provide for their family."

*Men with Egalitarian Gender Ideologies:* Jeff, who is currently employed at an NAIA institution said, "I don't think there is any one gender that's more qualified, or more directed to be a breadwinner." In regards to his career plans Jeff responded, "I see myself sitting right here." Rob, also employed at an NAIA institution simply stated, "disagree" when asked his opinion on traditional gender ideologies. Rob would like to remain working as an athletic trainer but has plans to leave the collegiate setting:

Well, currently I am in the process and hope of working for myself, and this summer I plan on moving back to my hometown... and providing athletic training services to... the construction industry [and] mining industry... So, really hoping to open opportunities for athletic trainers in [state name], in a new setting that I think our backgrounds really set us up to excel in... I'm basically hoping to have more control over my compensation. So, throwing that on a limb a bit to try to work for myself doing some, hopefully getting some contracts with businesses, and getting in touch, getting kind of into the labor community.

Jaden, a Division II athletic trainers tells us that he disagrees with the traditional gender roles and goes on to explain his relationship with his own son:

I consider myself to be a big caregiver for our son. I know how much time I spend away, so when I'm home I like to kind of take that role. And when he wakes up in the middle of the night and needs mom or dad I like to be the one to make that sleep sacrifice and go spend time with him. It's just another way that I can spend time with him that is really meaningful, you know just him and I.

When asked where he sees himself professionally in the next 5-10 years Jaden responded:

I think a lot of that depends on what decisions we make as a family in the next three to five years. If we decide that another child's going to be in the works, then I may be finding a different career, or a different setting for my career... Just the travel on the weekends, you know, that's a lot to, [and] it'd be a lot to dump on my wife. She definitely has her hands full with our little guy right now, and I couldn't imagine tacking another one on top of it, and still having me gone every

other weekend from basically August till the end of March. That's not fair to her, and truth be told it's not fair to me...I have limited time with the one we have now, and then splitting it between two at that point would make the time that you do spend with them even shorter. You know, with the, kind of the physician extender role that's available for athletic trainers, and our hospital that we're affiliated with definitely uses physician extenders and athletic trainers in that role...that may become something that I would be interested in... working a clinic job, and becoming that whole nine to five, nine to six Monday through Friday.

John who is currently employed in the Division III collegiate setting explains why he disagrees with the traditional gender ideologies, "The caregiver and breadwinner mentality I really think, it's a, it's just very outdated for the sense of that both men and women can be caregivers in their own sense. Whether it's if you have men and women in the athletic training field they're providing care to the athletes." While John would like to remain in the collegiate setting admits that he and his wife have discussed him leaving the profession entirely saying, "There is a potential to kind of branch off and do my own thing...I sometimes babble with my wife and I talk about opening our own bed and breakfast."

## **DISCUSSION**

The purpose of this study was to examine the impact individual, organizational, and sociocultural factors have on the job satisfaction and career intentions of collegiate athletic trainers. Our findings reveal that despite many similarities among our participants, individual level factors alone did not seem to influence participant's perceptions of either job satisfaction or career intentions. Organizational level factors

included salary, staffing, and work scheduling appeared to influence the job satisfaction of our participants. Gender ideologies influenced by sociocultural factors notably related to the career intentions of our participants. Our findings help expand our understanding of the work-life interface and illustrate the importance of examining various factors from a multilevel perspective.

### **Individual Level Factors**

Our participants described the importance of athletics in their lives, both currently and prior to entering the athletic training profession. Athletic identity is the degree to which an individual identifies with the athletic role and is the sport specific piece of an individual's self-concept.<sup>43</sup> Brewer et al.<sup>43</sup> explained that a person that values the athletic piece of their self-concept is more likely to be involved in physical activity than those who do not. While it may appear that athletic identity would increase with the level of sport participation, a number of studies have found no difference between sporting levels and athletic identity.<sup>47-50</sup> Lamont-Mills and Christensen<sup>47</sup> found that participation in sport may impact the self-perceptions of recreational athletes who may not be viewed as athletes per se, and they suggest that assuming sport is only important to elite athletes ignores the role that sport may play for less talented sport participants. It is possible that athletic trainers specifically chose a career path that enables them to remain in athletics due to their own athletic identities as opposed to choosing a different healthcare profession. Athletic-identity in isolation did not have a direct relationship to the job satisfaction or career identity of our participants.

Intrinsic motivation has been reported previously in the athletic training literature and has been shown to relate to professional commitment.<sup>33,51,52</sup> The intrinsic reward of



interacting with students athletes and seeing them progress through injuries is corroborated by Eason et al.<sup>52</sup> The idea of intrinsic reward has been linked to affective professional commitment, which refers to identifying with a profession and being loyal and psychologically attached.<sup>53</sup> Individuals with strong affective professional commitment remain in the profession because they want to and it is associated with employee satisfaction, retention, and motivation to contribute to the welfare of the organization.<sup>54</sup>

The participants identified as conscientious and extraverted. Conscientiousness encompasses the predisposition to demonstrate self-discipline, aim for achievement, manage time well, and carefully plan. A person with high levels of conscientiousness may border on perfectionism. Often, conscientious individuals demonstrate lower levels of conflict, as they are able to use their time wisely through time management.<sup>46</sup> Conscientiousness has been interconnected to job satisfaction because it denotes a general work penchant leading to a greater probability of obtaining both formal and informal satisfying work rewards.<sup>55</sup> A recent study examining collegiate athletic trainers found a weak positive relationship between conscientiousness and job satisfaction.<sup>56</sup> Extraversion is a personality that is often distinguished by positive emotions, and the tendency to seek stimulation and the company of others.<sup>30</sup> Extroverts enjoy being surrounded by people and the trait is marked by involvement with the external world. An individual who scores high in extraversion enjoy interactions with others, likes to talk, and is able to see the positive side of things.<sup>46</sup> An extravert is inclined to experience positive life emotions and positive emotionality likely generalizes to job satisfaction.<sup>57</sup>

Within athletic training, extraversion has been shown to have a weak positive relationship with job satisfaction.<sup>56</sup>

### **Organizational Level Factors**

The organizational level factors described by our participants emerged as directly impacting their job satisfaction. Displeasure with salary, long work hours, and inadequate staff created dissatisfaction for our participants. The idea of inadequate financial compensation and excessive hours is not new. More than 24 years ago Capel<sup>58</sup> examined athletic trainer attrition and found that time commitment and low salary were two of the primary reasons for leaving the profession. Mazerolle et al.<sup>59</sup> found that work overload caused by the large number of hours athletic trainers were required to work and a lack of enough athletic trainers to adequately fulfil work responsibilities led to a decreased professional commitment among collegiate athletic trainers. Unfortunately, in college athletics the nature of the work is often entrenched as working excessive hours, with little flexibility or autonomy over work scheduling.<sup>9,60</sup> Inadequate staffing has been addressed as problematic in the intercollegiate setting, as many sports medicine departments often fail to meet the appropriate medical coverage guidelines established by the NATA.<sup>61</sup> These inadequate staffing issues are problematic and can lead to reports of high student athlete to athletic trainer ratios, which often factors into the decision to depart the profession.<sup>6,58</sup> These issues of staffing patterns will likely mean a higher volume of work for the current staff and lead to overload which is directly related to one's intent to leave. There is evidence that worktime control may alleviate the negative effect of worktime demands on health and work-life balance.<sup>36,62-64</sup> Worktime control is an individual's autonomy related to starting and finishing times of

work, breaks, days off, total number of work hours, and vacations. Geurts et al.<sup>64</sup> found that worktime control may be an important tool to help individuals maintain work-life balance and they cautioned against working very long days.

### **Sociocultural Level Factors**

Our findings related to gender ideologies highlight the influences sociocultural level factors have on collegiate athletic trainers including cultural norms and societal expectations. The inclusion of sociocultural factors in Dixon and Bruening's model<sup>8</sup> gives credence to many who argue that preference, an individual level factor, alone does not dictate career trajectories. Preference theory is concerned primarily with women's choice between work and family, and it contends that there is a genuine choice.<sup>65</sup> The theory contends that a women's preference is based upon her individual personal needs and goals, which are likely independent of other factors such as societal contentions or organizational views. Our findings are in direct opposition to preference alone dictating career intentions and life courses. Research within coaching and athletic management has shown that due to existing societal driven gender norms, women typically have a more difficult time maintaining both work and family responsibilities and they report that they must constantly prove their worthiness.<sup>3</sup> Social norms not only make women feel that they have to choose work or family but also impart a negative social connotation in choosing work over family. Research in athletic training has found that women may hold traditional gender ideology of parenting and family roles which could potentially influence their career longevity.<sup>13</sup> The women in our study who held traditional gender ideologies were more likely to discuss their desire to leave the collegiate setting or athletic training altogether. Our findings make sense considering

traditional gender norms can create feelings of stress and guilt among women who feel pressured to take on more of a care-giver role in their personal lives.<sup>66</sup>

These findings also highlight the sociocultural influences females in our study face on a daily basis and may help explain why there is a disproportionately small number of women in leadership positions within NCAA sports medicine departments. In many cultures masculinity and leadership are closely linked. The ideal leader is decisive, assertive, and independent, traits which are parallel to the ideal man. In contrast, women are supposed to be nice, caretaking, and selfless. The dichotomy between traditionally feminine qualities and the qualities thought necessary for leadership places female leaders in a double bind. Behaviors that suggest self-confidence or assertiveness in men often appear arrogant or abrasive in women. Meanwhile, women in positions of authority who enact a conventionally feminine style may be liked but are not respected. They are deemed too emotional to make tough decisions and too soft to be strong leaders. Consider performance feedback as an example of the double bind women face. Research has copiously shown that accomplished, high-potential women who are evaluated as competent managers often fail the likability test.<sup>67-69</sup> Conversely competency and likability tend to go hand in hand for similarly accomplished men. Role congruity theory<sup>70</sup> predicts that women will be less likely than men to emerge as leaders when expectations for the leader role are dissimilar with gender stereotypes. According to this theory, prejudice toward female leaders occurs because there are inconsistencies between traditional female gender stereotypes and those associated with successful leaders.

Our findings were not isolated to women, however. The men in our study who believed in traditional gender ideologies, specifically men being the breadwinners were likely to remain in the collegiate setting, whereas men who did not express a belief in traditional gender ideologies expressed their desires to leave the collegiate setting or the athletic training profession. Within athletic training there has not been a lot of research examining the male's perspective. A recent study did find that male athletic trainers who were married, regardless of if they had children or not, felt that spouse and family responsibilities influenced their work-life balance.<sup>71</sup> Perhaps men who do not feel the pressure to financially provide for their families believe they have more freedom to pursue different professional avenues whereas men who do feel the pressure of being a breadwinner do not want to take potential risks that could impact their abilities to provide for their families. It is reasonable to assume that men who desire to stay in the profession may ultimately earn positions of leadership within the department. The consequence of men with traditional gender ideologies obtaining leadership positions is that a culture may be established that does not support men with egalitarian gender ideologies or women with traditional gender ideologies. It is this perpetual cycle that may ultimately be creating workplace atmospheres that drive individual employees away because they want more balance between their work and home lives.

### **Limitations and Future Directions for Research**

The results of this study may not be generalizable to all athletic training professionals as we only investigated the perceptions of collegiate athletic trainers. The job demands and patient populations of other athletic training clinical settings may impact organizational level factors and therefore need to be investigated. A quantitative

analysis should be conducted in order to investigate the relationship between the varying levels of factors to definitively determine interactions between the levels.

## **CONCLUSIONS AND IMPLICATIONS**

We found that while there were many similarities between individual level factors among our participants, these factors in isolation did not account for job satisfaction or career intentions. This finding highlights that preference alone is not propelling attrition within athletic training. Organizational factors did have an impact on job satisfaction, which has previously been shown in the literature. In addition, gender ideologies greatly impact the career intentions of collegiate athletic trainers.

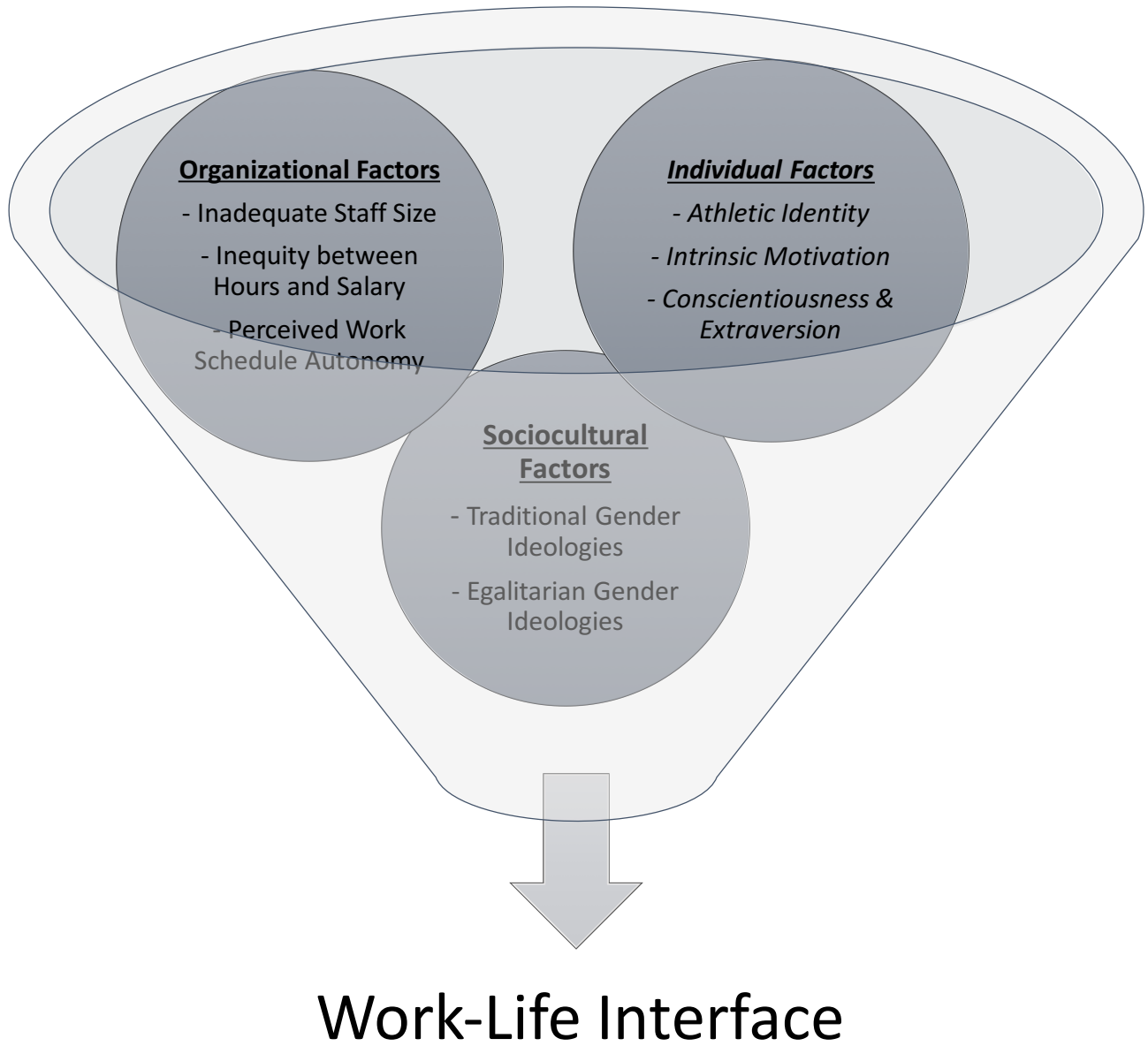
Our findings highlight that issues with retention and attrition among collegiate athletic trainers are multifactorial and are not solely based on an individual's own preferences and that there is a top-down and bottom-up implication. Policy and procedural changes cannot be suggested, nor implemented until there is an understanding of the multifactorial needs of the athletic trainers employed within the organization. Recognizing the multifaceted nature of the work-life interface may stimulate organizational policy change to help retain quality athletic training professionals within collegiate athletics.

Table 1. Participant Demographics and Pseudonyms

Pseudonym	Sex	Age	Yrs Cert	NCAA DIV	NATA Dist	Yrs Crnt Pos	Hour /wk	Length of Contract	# of FT ATs	Married	Child
Aaron	M	23	2	Div II	4	1	55	12	4	N	N
Amy	F	27	5	Div I	9	1	60	12	6	N	N
Brady	M	27	4	Div I	10	1	55	12	3	N	N
Cecelia	F	33	11	Div I	1	8	50	11	10	Y	Y
Dexter	M	29	6	Div III	1	4	45	10	4	Y	Y
Elizabeth	F	30	8	Div II	1	3	48	12	4	N	N
Eugenia	F	38	6	Div I*	7	1	20	9	2	N	N
Eva	F	42	19	Div II	4	14	60	12	3	Y	Y
Ginger	F	24	3	Div II	7	1	60	10	2	N	N
Grant	M	31	8	Div I	1	3	50	12	7	Y	N
Hayley	F	27	6	Div I	9	4	60	12	4	N	N
Howard	M	29	5	NAIA	5	4	45	12	3	N	N
Jackson	M	34	9	Div I	3	1	55	12	7	N	N
Jaden	M	29	6	Div II	5	4	60	10	4	Y	Y
Jamie	F	30	8	Div I	9	8	50	12	4	N	N
Jeff	M	38	15	NAIA	9	4	40	12	6	Y	Y
John	M	32	7	Div III	2	3	60	10	3	Y	N
Khloe	F	33	10	Div I	6	5	55	12	16	N	N
Kristen	F	28	7	Div III	1	5	55	12	3	N	N
Laura	F	35	11	Div I	3	1.5	60	11	9	Y	Y
Mackenzie	F	36	16	Div II	9	10	65	12	8	Y	N
Matt	M	56	32	Div III	6	6	50	10	6	Y	Y
Mia	F	28	6	Div III	3	4	60	10.5	3	Y	N
Nick	M	32	6	Div III	10	6	50	10	2	Y	Y
Richard	M	47	25	Div I	7	15	55	12	12	Y	Y
Rob	M	28	6	NAIA	10	3	45	11	3	Y	N
Shirley	F	40	16	Div I	4	13	50	12	6	Y	Y
Trisha	F	28	7	Div III	4	5	60	10.5	3	Y	N
Will	M	59	33	Div I	3	10	60	12	5	Y	Y
Yuri	F	29	6	Div I	4	4	70	12	18	N	N

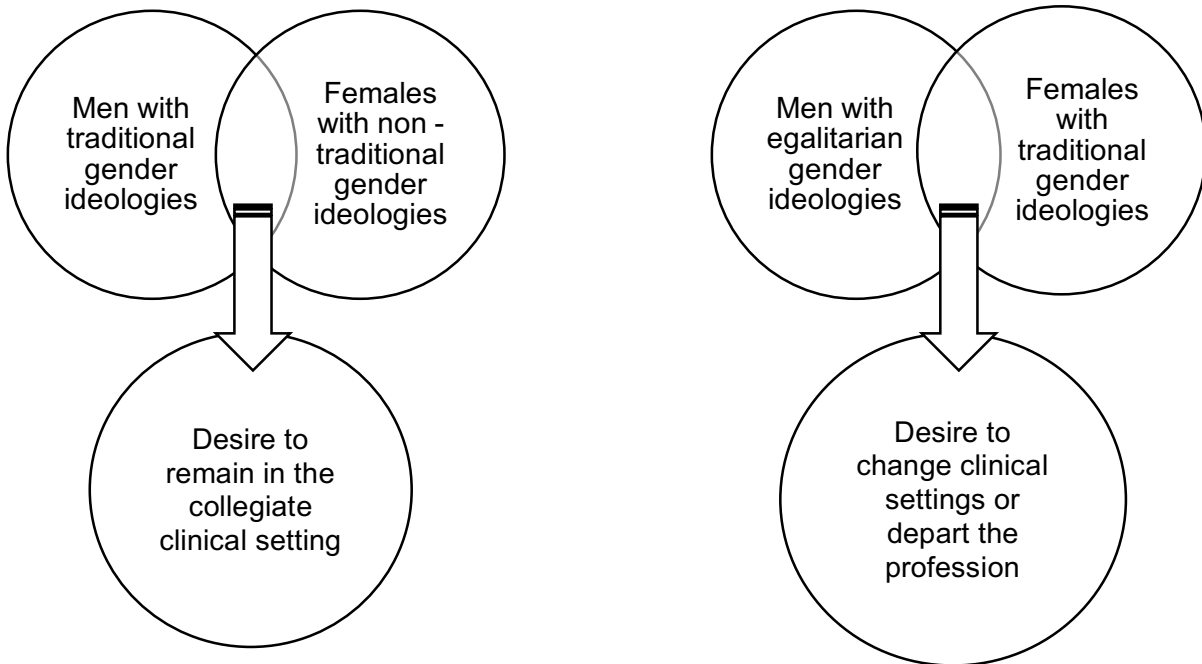
\* Club Sports

**Figure 1. Themes**





**Figure 2. Impact of Gender Ideologies on Career Intentions**



## **Appendix A. Semi-structured Interview Guide:**

1. Tell me about your career path and how you originally became interested in athletic training?
2. How would you describe yourself?
  - a. Probe: Personality, values, etc.
3. What are the things you value in your life?
4. What do you like most about your current job?
5. Is there anything you would change about your current job?
6. What motivates you in your job? What motivates you in your personal life?
7. How do you manage stress? What do you do for fun?
8. Please tell me how much you agree or disagree with the following statement:  
Women are typically the caregivers and men are the breadwinners.
9. Should a male athletic trainer work with a female team and vice versa?
10. What are your biggest stressors at work? What are your biggest stressors at home?
11. How do you influence your workday and work schedule?
  - a. Probe: length of day, taking vacation, when the day starts and ends
12. How would you describe your department and organization in regards to its "family friendliness"
13. Does your department or organization offer any formal "family friendly policies"?
14. If a conflict came up between a work and personal commitment, how would you decide which takes priority?
  - a. Probe: do you ever miss personal or family commitments because of work?
15. Tell me about your communication style. How does that compare to the communication style of your co-workers and your supervisors?
  - a. Probe: how would you describe your supervisor?
16. Where do you see yourself in 5-10 years?
  - a. Probe: if leaving athletic training, what other professions are they looking at?

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**DATE:** November 5, 2015

**TO:** Stephanie Mazerolle, Ph.D.  
Christianne Eason, MS, ATC, Student Investigator  
Kinesiology

**FROM:** Jaci L. VanHeest, Ph.D.   
Chair, Institutional Review Board  
FWA# 00007125

**RE:** Protocol #H15-214: "Multilevel Framework of Career Intentions in Athletic Training: Individual, Sociocultural and Organizational Factors"  
*Please refer to the Protocol# in all future correspondence with the IRB.*

The request for approval of an amendment received October 28, 2015 for the above-referenced protocol was approved by the Institutional Review Board (IRB) on November 5, 2015. This amendment is eligible for expedited review under 45 CFR 46.110(b)(2): minor changes in previously approved research during the period (of one year or less) for which approval is authorized. The amendment includes:

1. A new funding source has been added: NATA New Investigator Grant.
2. Changes to survey instrument: the Gender and Cultural norm portion of the survey will be replaced with the PIVS and the short AWS.

Amendment Approval Date: November 5, 2015

Approval is Valid Until: August 11, 2016

*Please keep this Amendment Approval letter with your copy of the approved protocol.*

**Attachments:**

1. Validated IRB-3 Amendment Review Form
2. Validated Revised IRB-1 Online Application Form
3. Validated Revised Consent Form and Information Sheet

Colt ✓

IRB-3 — Amendments

Page 1



OFFICE OF THE VICE PRESIDENT FOR RESEARCH

RECEIVED

OCT 28 2015

Attach two (2) copies of the revised documents (e.g. Consent forms, questionnaire, etc.) inclusive of all amendment(s) proposed. In one copy, the amendments should be identified by using the track-changes feature of Microsoft Word to facilitate the IRB review; the other copy should be a "clean" copy incorporating the revisions. If you are changing the key personnel on the study, submit the Appendix A form only (inclusive of all active study personnel).

**Amendment Review Form (IRB-3)**

Institutional Review Board, Research Compliance Services

Whetten Graduate Center, Rm #214, 438 Whitney Road Ext., Unit 1246 Storrs, CT 06269-1246 860-486-8802

Any amendment to an approved protocol must be reviewed and approved by the IRB **before** the amendment is implemented. Such amendments could include changes to the study design, procedures, enrollment, methods of recruitment, personnel, funding source or the consent form/information sheet. This includes changes that appear to reduce risks to subjects. There are NO EXCEPTIONS to this rule.

Protocol #: H15-214

Principal Investigator: Mazerolle, Stephanie M

Study Title:

Multilevel Framework of Career Intentions in Athletic Training: Individual, Sociocultural and Organizational Factors

**\*1. Describe each proposed amendment(s) and explain why it is being made.**

We would like to make two amendments to our IRB. The first amendment involves funding. We were awarded the NATA New Investigator Grant to help fund the study. Additionally we would like to make a change to our survey instrument. No data has currently been collected for this study nor have any participants been recruited. We would however like to replace the Gender and Cultural norm portion of our online survey with two previously validated surveys, the PIVS and the short AWS. We would like to make this change because we were not able to validate the Gender and Cultural norm survey (data that had been collected under a different IRB protocol (x15-116)). We anticipate that modifying the online survey instrument will increase the estimated time to complete our survey and have therefore made the necessary adjustments the information sheet, email recruitment, reminder email, and consent form.

**\*2. For each amendment listed above, explain whether the proposed amendment increases or decreases the level risk to participants (thereby changing the risk/benefit ratio) and, if so, describe. If the level of risk remains the same, describe this as well.**

The above amendments will not increase or decrease the level of risk for our participants.

\*Has the funding source or the status of funding changed since initial or last re-approval review? ☒ Yes ☐ No

\*Does the study have a Certificate of Confidentiality? ☒ Yes ☐ No

\*Is this a change to personnel? ☐ Yes ☒ No

UConn IRB

Approved On 11/5/15  
Approved Until 8/1/16  
Approved By JWA

**Funding**

- |  |   |
|--|---|
| <input type="checkbox"/> Departmental Funds                        | <input type="checkbox"/> Human Rights Institute     |
| <input checked="" type="checkbox"/> External (including subawards) | <input type="checkbox"/> Research Incentive Account |
| <input type="checkbox"/> Faculty Grants (Large/Small)              | <input type="checkbox"/> Faculty Start-Up Funds     |
| <input type="checkbox"/> Graduate School DDF or EE Award           | <input type="checkbox"/> Investigator Out-of-Pocket |
| <input type="checkbox"/> Office of Undergraduate Research Award    | <input type="checkbox"/> Unfunded                   |

**Externally Funded Studies:**

If the research is supported either in whole or in part by external funds (federal, state or private), one COMPLETE copy of each grant application must be on file with the IRB.

Note: If the PI on the grant/contract is not the PI on this IRB protocol, documentation must be on file with the IRB in which the PI, who is receiving the grant, acknowledges use of this protocol under the grant.

\*Name of Funding Source: National Athletic Trainer's Association

Principal Investigator: Stephanie Mazzerolle

Contract/Grant Title: (if different from study title)

KFS Account Number: 6367910

OSP Proposal Number:

Grant/Contract Status: (i.e., pending/awarded) awarded

\*Will funds from this contract/grant be awarded to an individual or institution (via a PSA or subcontract) that will be engaged in human participant research?

☐ Yes ☒ No

Provide additional comments as needed:

## Appendix B. Email Recruitment Letters

Hello,

You are invited to participate in a research study examining perceptions of workplace culture and daily job responsibilities of collegiate athletic trainers. **Upon completion of this survey you will be asked to provide your contact information for a chance to win a \$50.00 Amazon gift card.** You have been contacted because you are currently employed as an athletic trainer at the collegiate setting. This study is being conducted by Christianne Eason Doctoral Student at the University of Connecticut and Dr. Stephanie Mazerolle Assistant Professor at the University of Connecticut.

If you decide to participate, you will be asked to click on the link below and answer several Likert scale questionnaires, demographic questions, and a few open-ended questions. Your participation should take between 20-40 minutes. At the end of the survey you will be asked to provide your contact information to be entered for a chance to win a \$50.00 Amazon gift card and you will be asked if you are interested in competing a follow-up phone interview. If you are interested, please click on the link below to start the online survey. We have attached an information sheet to this email if you would like to read more about the purpose of our study. It is important to note that email is not a secure method of transmission and information transmitted via work email can be viewed by your employer.

Your participation in this study is completely voluntary. There are no foreseeable risks associated with this project. However, if you feel uncomfortable answering any questions, you may skip them or you may withdraw from the survey at any point.

Thank you very much for your time and support.

[http://qeasttrial.co1.qualtrics.com/SE/?SID=SV\\_bJB6Rnnp95a7kdT](http://qeasttrial.co1.qualtrics.com/SE/?SID=SV_bJB6Rnnp95a7kdT)

Sincerely,  
Christianne Eason, MS, ATC  
Doctoral Student  
University of Connecticut

Stephanie Mazerolle, PhD,  
Assistant Professor, Principal-Investigator  
University of Connecticut

### Reminder Email for Study Completion

Hello,

This email is a reminder to complete the athletic training workplace practice survey that you were sent two weeks ago. Completion of this survey will take approximately 25-50 minutes of your time. Your participation is completely voluntary.

If you have already completed this survey, we would like to thank you for your time.

There is no need to click on the link below.

Please go to the following web address:

[http://qeasttrial.co1.qualtrics.com/SE/?SID=SV\\_bJB6Rnnp95a7kdT](http://qeasttrial.co1.qualtrics.com/SE/?SID=SV_bJB6Rnnp95a7kdT)

Christianne Eason, MS, ATC

Doctoral Student

University of Connecticut

Hello,

This email will be the final reminder to complete the athletic training workplace practice survey that you were originally sent one month ago. Completion of this survey will take approximately 25-50 minutes of your time. Your participation is completely voluntary.

If you have already completed this survey, we would like to thank you for your time.

There is no need to click on the link below. We will draw the winner of the Amazon gift card on December 17th. You will be notified by December 18th at the latest if you have won.

Please go to the following web address to complete the survey:

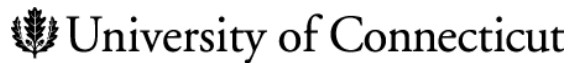
[http://qeasttrial.co1.qualtrics.com/SE/?SID=SV\\_bJB6Rnnp95a7kdT](http://qeasttrial.co1.qualtrics.com/SE/?SID=SV_bJB6Rnnp95a7kdT)

Thank you again for your time and consideration.

Christianne Eason, MS, ATC  
Doctoral Student  
University of Connecticut

## Appendix C. Consent Form

### Consent Form for Participation in a Research Study



**Principal Investigator:** Stephanie M. Mazerolle, PhD, ATC, LAT

**Student Researcher:** Christianne M Eason, MS, ATC

**Study Title:** Multilevel Framework of Work-Life Conflict in Athletic Training: Individual, Socio-Cultural and Organizational Factors

#### Introduction

You are invited to participate in a research study to learn more about the multiple factors that may contribute to work-life conflict, and job satisfaction. You are being asked to participate because you are currently employed as a full-time athletic trainer at the collegiate setting.

#### Why is this study being done?

The purpose of this study is to examine and develop a greater understanding of the day-to-day experiences of collegiate athletic trainers. Specifically we want to learn more about the individual, organizational, and sociocultural factors that may impact an athletic trainer on a daily basis. It is important to understand that issues with work and life satisfaction in the athletic training profession are multi-factorial and are not solely based on an individual's own preferences and that there is a top-down and bottom-up implication.

#### What are the study procedures? What will I be asked to do?

Our project will begin August 2015. You will be asked to participate in a phone interview with one researcher. Questions in the survey will ask you about your perceptions of work-life balance, your relationship with your supervisor, co-workers, and other colleagues. We estimate that the survey will take approximately 25-50 minutes to complete.

#### What are the risks or inconveniences of the study?

The risks for this study are minimal. These risks include the potential for the participant to be identified once the results of the study are published. Additionally, all audio recordings of the interviews will be sent to a third party for transcription. To minimize this risk, all participants who participate in the interview process will be identified by a pseudonym, and all data files sent to the third party transcriber will only be labeled with your pseudonym. You will only be referred to by the pseudonym during transcription, data analysis, and in publication. Additionally, any potential identifiers (such as the institution where you work) will be disguised. The major inconvenience to you is the time required to complete the study, which is expected to be 25-50 minutes.

#### What are the benefits of the study?

You may not directly benefit from this research; however, we hope that your participation in the study may help provide valuable information in order to create a multilevel framework on work-life conflict. Information gained from this study will help athletic trainers find balance, which has a direct relationship with improving job satisfaction and retention.

Will I receive payment for participation? Are there costs to participate?

Upon completion of the phone interview you will be eligible to enter a chance to win a \$50 gift card. There are no costs to participate.

How will my personal information be protected?

To minimize risk, you will not be asked to provide any contact information during the survey (unless you choose to do so in order for a chance to win a \$50.00 gift card). All participants who participate in the survey will be identified by a pseudonym. You will only be referred to by the pseudonym during data analysis and in publication. Additionally, any potential identifiers (such as place of employment) will be disguised. Data (with the exception of audio recordings) will only be maintained for as long as it takes to publish the data and based on federal regulations [minimum 3 years; maximum 5] and then all data will be deleted from the investigator's computers. Audio recordings will be deleted once transcriptions are completed. We will do our best to protect the confidentiality of the information we gather from you but we cannot guarantee 100% confidentiality.

You should also know that the UConn Institutional Review Board (IRB) and the Office of Research Compliance may inspect study records as part of its auditing program, but these reviews will only focus on the researchers and not on your responses or involvement. The IRB is a group of people who review research studies to protect the rights and welfare of research participants.

Can I stop being in the study and what are my rights?

You do not have to be in this study if you do not want to. If you agree to be in the study, but later change your mind, you may drop out at any time. There are no penalties or consequences of any kind if you decide that you do not want to participate. You do not have to answer any questions that you do not want to answer. You will be notified of all significant new findings during the course of the study that may affect your willingness to continue. If you do not complete the study requirements you will not be entered for a chance to win the Amazon gift card (even if you have provided your contact information).

Whom do I contact if I have questions about the study?

Take as long as you like before you make a decision. We will be happy to answer any question you have about this study. If you have further questions about this study or if you have a research-related problem, you may contact Christianne Eason at [christianne.eason@uconn.edu](mailto:christianne.eason@uconn.edu) or Dr. Stephanie Mazerolle at [Stephanie.mazerolle@uconn.edu](mailto:Stephanie.mazerolle@uconn.edu). If you have any questions concerning your rights as a research participant, you may contact the University of Connecticut Institutional Review Board (IRB) at 860-486-8802.



**Documentation of Consent:**

I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement and possible risks and inconveniences have been explained to my satisfaction. I understand that I can withdraw at any time. My signature also indicates that I have received a copy of this consent form.

\_\_\_\_\_  
Participant Signature:

\_\_\_\_\_  
Print Name:

\_\_\_\_\_  
Date:

Relationship (only if not participant): \_\_\_\_\_

\_\_\_\_\_  
Signature of Person

\_\_\_\_\_  
Print Name:

\_\_\_\_\_  
Date:

## UNIVERSITY OF MINNESOTA

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*Twin Cities Campus*

*Department of Psychology  
College of Liberal Arts*

*N218 Elliott Hall  
75 East River Road  
Minneapolis, MN 55455*

*Office: 612-625-2818  
Fax: 612-626-2079  
[www.psych.umn.edu](http://www.psych.umn.edu)*

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Dear Christianne Eason,

We are pleased to grant you permission to use the **Minnesota Satisfaction 1977 short form** on a secure web site.. We acknowledge receipt of your **\$60.00** payment for Royalty fees for **300 MSQ Short Form Surveys**.

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We would appreciate receiving a copy of any publications that result from your use of the **MSQ short form surveys**. We attempt to maintain an archive and bibliography of research related to Vocational Psychology Research instruments, and we would value your contribution to our collection.

If you have any questions, or if we can be of any additional assistance, please do not hesitate to contact us.

Sincerely,

Vocational Psychology Research

## **Appendix E. Phase II Interview Guide**

### **Demographic Questions:**

1. Age
2. Gender
3. Years certified
4. NATA District
5. Current Employment Setting
6. Current position
7. # of years in current position
8. Avg # of hours worked/week
9. Length of contract
10. # of full time staff ATs
11. Organizational structure
12. Marital status
13. Any children?

### **Open Ended Questions:**

17. Tell me about your career path and how you originally became interested in athletic training?
18. How would you describe yourself?
  - a. Probe: Personality, values, etc.
19. What are the things you value in your life?
20. What do you like most about your current job?
21. Is there anything you would change about your current job?
22. What motivates you in your job? What motivates you in your personal life?
23. How do you manage stress? What do you do for fun?
24. Please tell me how much you agree or disagree with the following statement:  
Women are typically the caregivers and men are the breadwinners.
25. Should a male athletic trainer work with a female team and vice versa?
26. What are your biggest stressors at work? What are your biggest stressors at home?
27. How do you influence your workday and work schedule?
  - a. Probe: length of day, taking vacation, when the day starts and ends
28. How would you describe your department and organization in regards to its “family friendliness”
29. Does your department or organization offer any formal “family friendly policies”?
30. If a conflict came up between a work and personal commitment, how would you decide which takes priority?
  - a. Probe: do you ever miss personal or family commitments because of work?
31. Tell me about your communication style. How does that compare to the communication style of your co-workers and your supervisors?
  - a. Probe: how would you describe your supervisor?
32. Where do you see yourself in 5-10 years?
  - a. Probe: if leaving athletic training, what other professions are they looking at?

## **Appendix F. Vita**

Christianne M. Eason earned her Bachelor's Degree from the University of Connecticut in athletic trainer and her Master's Degree from James Madison University in nutrition and exercise science. She won the 2015 Eastern Athletic Trainer's Association Graduate level poster presentation. She is a licensed athletic trainer in both Massachusetts and Connecticut. Ms. Eason has worked as a clinical athletic trainer at the NCAA I and III settings as well as in the secondary school setting. Additionally, she has worked as a volunteer in the medical tents of the Boston Marathon four times. She was a doctoral student in the NEAG School of Education's Sport Management program at the University of Connecticut.

Ms. Eason is currently employed as an assistant professor of athletic training and exercise science at Lasell College in Newton, Massachusetts where she teaches undergraduate students. She continues to work as a per diem athletic trainer, providing medical coverage to youth and secondary school sports. Ms. Eason serves as a peer reviewer for the *Journal of Athletic Training*, and the *International Journal of Athletic Therapy and Training*. She has presented at numerous national, regional, and state conferences, authored two textbook chapters, and has published more than 15 peer reviewed articles on topics including professional commitment, career intentions, organizational structure, and mentoring within athletic training.