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The National Athletic Trainers' Association (NATA) has experienced a decline in membership in recent years generating much debate about the professional commitment of a new generation of athletic trainers. The purpose of this study therefore was to compare the contributing factors of job satisfaction and intention to leave athletic training in Certified Athletic Trainers (ATs) employed in NCAA Division I, II, and III institutions. A web-based questionnaire was utilized to examine both job satisfaction and intention to leave the profession of athletic training. The Job Satisfaction Survey (JSS) consisted of 36 items based on a 6-point Likert scale. The JSS produced 8 subscales of job satisfaction which were used for all data analysis. The Intention to Leave Survey (ITLS) was an original instrument consisting of 7 items. A 4-point Likert scale was designed to determine a respondent's intent to leave and to what degree they have actively pursued such intentions. All NATA certified members in district 3 employed in a college or university job setting were solicited via e-mail for participation in the study. In addition, 60 ATs from each of the remaining nine NATA districts who met the inclusion criteria were also solicited. There was a follow-up solicitation after two weeks for a total of two solicitations over a three week data collection period. Only respondents that were employed in clinical or dual appointment were included in the data analysis. 191 ATs completed all sections of the survey. The subjects represented NCAA division I (n=106, 55.5%), division II (n=37, 19.4%), and division III (n=48, 25.1%). In addition, subjects were also divided by job title into head athletic trainer (n=63, 33.0%), assistant/associate

athletic trainer (n=103, 53.9%), and graduate assistant/intern athletic trainer (n=25, 13.1%). Separate factorial ANOVAs compared the mean scores of each of the 8 JSS subscales by NCAA division and job title. A factorial ANOVA was also used to compare the mean scores of the ITLS and NCAA division and job title. A step-wise multiple regression was used to determine the strength of the relationships between the 8 JSS subscales and the total ITLS score. The alpha level was set at .05. The factorial ANOVAs revealed significant differences for job title in the JSS subscales of fringe benefits (p= .001) and operating conditions (p=.000). Significance was also seen in the interaction between NCAA division and job title in the JSS subscale of nature of work (p= .043). The multiple regression revealed the JSS subscales of nature of work (r= -.45), pay/rewards (r= -.43), and promotion (r= -.41) were the most significant indicators of intention to leave. The results of this study suggest there is a strong negative correlation between various facets job satisfaction and intent to leave the profession of athletic training. NCAA division seems to have no impact on an individual's job satisfaction or intention to leave the profession. In addition, only fringe benefits and operating conditions seem to be affected by job title. These results suggest that ATs have similar levels of job satisfaction regardless of NCAA division and their job title is not a major factor in job satisfaction.

JOB SATISFACTION AND INTENT TO LEAVE THE PROFESSION OF ATHLETIC TRAINING

by

Aaron B. Terranova

A Dissertation Submitted to
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To my Parents and Brother,

You have been there for me when I needed you the most.

To my Friends, and especially those who could not be here,

The journey is over.

To my wife Emily,

Your sacrifice and support has been incredible. I could not have accomplished this without you.

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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CHAPTER I

INTRODUCTION

Limiting turnover and increasing employee retention has become of paramount importance for athletic trainers. The National Athletic Trainers' Association (NATA) saw a steady increase in membership starting in the mid 1970's and continuing through to 2005 (NATA, 2006); however recent membership numbers have shown a decline for the first time in history (NATA Board of Directors, 2007). Membership data has suggested an approximate attrition of 16,666 members from the NATA over the past five years (NATA, 2006). Additionally, the NATA reported a 1.2% decrease in membership numbers from 2005 to 2006 (NATA, 2006). New membership does not seem to be the problem as an average of 3,000 new members has joined annually since 2000. The problem seems to arise from losing existing members. One factor contributing to this phenomenon may be job satisfaction.

Job satisfaction has been defined as the degree to which people like their jobs (Spector, 1997) and consists of an affective component which comprises an individual's feeling of satisfaction regarding their job and a perceptual component which evaluates whether one's job is meeting one's needs (Cranny, Smith, & Stone, 1992). Job satisfaction has many potential consequences associated with it. An inverse relationship has been shown between job satisfaction and intention to leave a profession (Mobley, Horner, & Hollingsworth, 1978) and consequently intention to leave has been directly related to job turnover (Michaels & Spector, 1982). Turnover, which is considered a

terminal action (Irvine & Evans, 1995), has the potential for the worst possible consequences for both the individual and profession (Harkson, Unterreiner, & Shepard, 1982). Turnover refers to a behavior of voluntarily separating or quitting a current organization or occupation (Bluedorn, 1982). Understanding the behavioral intentions of an individual to leave an organization or occupation before they reach the terminal level of actually leaving may potentially help lower turnover rates (Salvatori, Williams, Polatajko, & MacKinnon, 1992).

The potential consequences of job satisfaction have been well established. (Irvine & Evans, 1995; Mobley, Horner, & Hollingsworth, 1978; Steel & Ovalle, 1984) The relationship between lower job satisfaction leading to increased behavioral intention to leave the profession has been seen in allied health fields such as nursing (Irvine & Evans, 1995). However, no research to date has examined the consequences of job satisfaction, both positive and negative, in athletic training.

The large percentage (20%) of Certified Athletic Trainers (ATs) employed in the college/university setting demonstrates the importance of understanding job satisfaction in this setting. The various divisions of the National Collegiate Athletic Association (NCAA) provide different work environments for ATs. The impact of NCAA division on job satisfaction has barely been investigated. The majority of the studies examining the differences in job satisfaction between NCAA divisions have centered around coaches (Chelladurai & Ogasawara, 2003; Jordan, Mullane, & Gillentine, 2004; Pastore, 1993; Yusof, 1999) with conflicting results. Therefore, research needs to be continued in this area to determine if NCAA division impacts job satisfaction in ATs. Although adequate research has discussed job satisfaction of ATs in colleges and universities (Barrett,

Gillentine, Lamberth, & Daughtrey, 2002; Mazerolle, Bruening, Casa, Burton, & Heest, 2006; Pitney, 2006; Pitney, Ilsley, & Rintala, 2002a) no published research exists to describe any differences in job satisfaction among athletic trainers in different NCAA divisions.

Statement of the Problem

Job satisfaction is the main predictor of intention to leave a profession (Mobley, Horner, & Hollingsworth, 1978). Lowering intention to leave the profession of athletic training may limit the amount of turnover which has been seen in the profession over recent years. Approximately 4,800 (20%) of the certified membership are employed in the college or university setting (NATA, 2006) and are more than likely employed at a NCAA institution making this a relevant work setting to investigate. Further, identifying ATs' intention to leave the profession of athletic training will provide additional information regarding the possible severity of turnover at the collegiate level. Therefore, the purposes of this investigation are to 1) compare the job satisfaction of ATs employed at NCAA Division I, II, and III institutions, 2) compare the intention to leave the profession of athletic training by ATs employed at NCAA Division I, II, and III, institutions, 3) examine the relationship between job satisfaction and intention to leave the profession of athletic training, and 4) identify the most significant predictors of intent to leave the athletic training profession based on various subscales of job satisfaction.

Research Questions and Hypotheses

1. Is there a difference in the job satisfaction of ATs based on NCAA Division or primary job title?

The NCAA bases its three divisions on many factors including financial rewards for their student athletes, number of athletic teams, and scheduling criteria (NCAA, 2007). Typically, the larger universities are Division I status and the smaller colleges are Division III. Due to the high volume of revenue which can be generated from sports such as football and basketball at the Division I level, there are typically large and fully furnished athletic training facilities at these institutions. In addition, there are many ATs and other sport enhancement personnel, such as strength and conditioning coaches, who are employed which helps to disperse the work load. In addition, Division I institutions may also employ multiple Graduate Assistants/Intern Athletic Trainers (GAs). The graduate assistantship is typically a one to two year position which requires many of the same athletic training responsibilities as a full-time position without the same compensations, while also engaging in graduate level course work.

Hypothesis 1a: ATs in NCAA Division I will have significantly higher overall total job satisfaction scores than ATs in NCAA Division II and III.

Hypothesis 1b: GAs will have significantly lower overall job satisfaction scores than full-time ATs regardless of NCAA Division.

2. Is there a difference in intention to leave the profession of athletic training based on NCAA Division or primary job title?

Division II sponsors 140 less institutions than Division III and just under 50 less than Division I (NCAA, 2007). In addition, the definition of what constitutes a Division II institution shares many of the same requirements of Division I as well as Division III. The combination of these factors make Division II a hybrid division with a muddled definition and low membership total. This division seems to be awkwardly placed

between the other two divisions, and in fact has been losing members to Division I and other collegiate associations over the last decade (Martin, 2005). This may make ATs employed in this setting feel uncomfortable or uncertain about their status and place in the collegiate athletic training world.

In addition, research has shown the first job for an individual is crucial in determining their longevity in a profession (Winter-Collins & McDaniel, 2000), which for many ATS will be the graduate assistantship position. Due to their work loads and inadequate compensations, the GA can become disillusioned with the profession based on this first experience in the work force.

Hypothesis 2a: ATs in NCAA Division II will have significantly higher overall intention to leave scores than ATs in NCAA Divisions I and III.

Hypothesis 2b: GAs will have significantly higher overall intention to leave scores than Head Athletic Trainers (HATs) or Associate/Assistant Athletic Trainers (AATs) regardless of NCAA Division.

3. Which of the job satisfaction subscales influence intention to leave the profession of athletic training in ATs working in NCAA institutions?

Job satisfaction has been shown to have a direct and significant negative correlation with intention to leave (Hellman, 1997). In addition, pilot data has suggested the multiple subscales of the JSS all predict intention to leave.

Hypothesis 3: All the subscales of job satisfaction score will have a significant negative correlation with the overall intention to leave score.

4. What are the subscales of job satisfaction that will predict intention to leave the profession of athletic training in ATs?

The results of the pilot study suggested the subscales of "coworkers" and "promotion" demonstrated the highest correlations with the total intention to leave score.

Hypothesis 4a: The job satisfaction subscales of "coworkers" and "promotion" will be significant predictors of the overall intention to leave score.

Independent and Dependent Variables

Independent Variables

1. NCAA division: Classification of each institution (I, II, III) as self-reported by the participant.

2. Primary Job Title: Classification of each participant's primary job title (HAT, AAT, GA) as self-reported by the participant.

3. Job satisfaction sub-scales: Eight separate subscale scores of the Job Satisfaction Survey (JSS) *(pay & rewards, promotion, supervision, fringe benefits, operating conditions, nature of work, communication).*

Dependent Variables

1. Job satisfaction sub-scales: Eight separate subscale scores of the JSS *(pay & rewards, promotion, supervision, fringe benefits, operating conditions, nature of work, communication).*

2. Total intention to leave score: Total score for each participant on the Intention to Leave Survey (ITLS).

Limitations and Assumptions

1. The use of the on-line survey technique may have influenced a potential subject's decision to participate in the study. The results from this dissertation can only be

generalized to ATs who are comfortable with and willing to participate in on-line data collection.

2. The results from this dissertation cannot be generalized to populations other than ATs who are members of the NATA employed in NCAA Division I, II, or III institutions.

3. A portion of the research relied on the subject's ability to predict their behavioral and actual intentions one year into the future. As a result of this predictive nature, there was the potential for the subject's perception of their intentions to affect their actual intentions.

4. It was assumed that participants responded honestly and accurately to all questions.

Delimitations

1. Only ATs employed at NCAA institutions will participate.

2. Institutions chosen are active members of the NCAA and located within one of the NATA's 10 Districts.

3. All results will be collected via an online survey system which will require internet access and a valid e-mail address for each participant to receive the URL web link address.

4. Job satisfaction scores will be obtained using the Job Satisfaction Survey (JSS)

5. Intention to leave scores will be obtained using the Intention to Leave Survey (ITLS)

6. The random sample pool of participants will be provided from the NATA Membership List Rental with the parameters of college/university; certified and certified student.

Definitions

For the purposes of this study, the following conceptual and operational definition of terms will be used:

1. *Job Satisfaction*:

Conceptual Definition: The degree to which an individual likes their job and consists of two components: 1) an affective component which comprises an individual's feeling of satisfaction regarding their job and 2) a perceptual component which evaluates whether one's job is meeting one's needs.

Operational Definition: Eight separate subscale scores of the JSS each containing a various number of items. Scoring was on a Likert-Scale with a range of 1-6 for each individual response, with a total score range of 36-216; thus a higher score indicated 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.

Operational Definition: The total combined score of all items on the ITLS. The four items referring to retention of the ATC credential and NATA membership were not included in the total score. Scoring was on a Likert-Scale with a range of 1-4 for each individual response, with a total score range of 7-28; and a higher score indicated a higher intention to leave.

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

4. *Certified Graduate Assistant/Intern Athletic Trainer:* A Certified Athletic Trainer as defined by the National Athletic Trainers' Association (NATA) Board of Certification

(BOC), Inc. The individual is in good standing with the BOC and currently employed in a NCAA collegiate institution as graduate assistant or intern working primarily in the field of athletic training in a clinical or dual appointment capacity.

5. *Certified Athletic Trainer:* A Certified Athletic Trainer as defined by the NATA Board of Certification (BOC), Inc. The individual is in good standing with the BOC and currently employed in a NCAA collegiate institution as a HAT, AAT, or athletic training faculty member working primarily in the field of athletic training in a clinical or dual appointment capacity.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of the following literature review is to examine 1) the sources and consequences of job satisfaction, 2) the current status of athletic training turnover and job satisfaction, 3) the relationship between job satisfaction and intention to leave, and 4) the consequences of intention to leave.

Job Satisfaction

Social psychologists have attempted to explain the interactions of employees and the organizations and occupations in which they work in and what factors influence these relationships (Hellman, 1997). Assessing job satisfaction is one method used to examine these factors and relationships. A fundamental problem when examining job satisfaction however is the very nature of it, as job satisfaction is a highly complex construct involving various components (Coomber & Barriball, 2006). Spector (1997) acknowledged that the whole concept of job satisfaction has many problems associated with it including inconsistent definitions, methods of assessment, sources, and potential consequences. Nevertheless, the literature is saturated with various investigations of job satisfaction and its related factors (Bedeian & Armenakis, 1981; Hackman & Oldham, 1976; Hellman, 1997; Spector, 1997). The purpose of this section therefore is to examine and simplify the construct of job satisfaction by 1) establishing a consistent definition, 2) examining the various sources of job satisfaction, and 3) examining the potential positive and negative consequences of job satisfaction.

Definition of Job Satisfaction

Job satisfaction is a construct with multiple definitions and variations (Cavanagh, 1992). The simplest definition of job satisfaction may be from Spector (1997) who described job satisfaction as the degree to which people liked their jobs. This definition adequately summarized job satisfaction however it did very little to actually describe how or why an individual was satisfied with their job. McKenna (2000) suggested job satisfaction was an individual's attitude to how well personal expectations corresponded to their actual outcomes. Although it provided some deeper insight, this definition still only began to examine the components of job satisfaction. More comprehensive definitions involved a combination of cognitive and affective reactions to what an employee wanted to receive compared to what they actually did receive from their job (Cranny, Smith, & Stone, 1992). For the purposes of this review, job satisfaction will be defined based on Spector's (1997) and Tovey and Adams's (1999) definitions. Job satisfaction is the degree to which an individual likes their job and consists of two components: 1) an affective component which comprises an individual's feeling of satisfaction regarding their job and 2) a perceptual component which evaluates whether one's job is meeting one's needs.

Sources of Job Satisfaction

For the purposes of this investigation, seven potential sources of job satisfaction have been identified from the literature: job characteristics (Campion & McClelland, 1991; Hackman & Oldham, 1976; Wall & Martin, 1987), job stress (Cooper & Cartwright, 1994; Gieck, 1984; Spector, 1997), pay (Irvine & Evans, 1995; Mensch & Wham, 2005; Rice, Philips, & McFarlin, 1990), work-family conflict (Lewis & Cooper,

1987; Mazerolle, Bruening, Casa, Burton, & Heest, 2006), role variables (Bedeian & Armenakis, 1981; Biers & Murphy, 1970; Kemery & Mossholder, 1987; Klenke-Hamel & Mathieu, 1990), and organizational constraints (Laff, 2007; Lev-Ram, 2006; Mayhew, 2005; Peters, O'Connor, & Rudolf, 1980; Spector, 1997).

Job characteristics refer to the content and nature of the job itself (Wall & Martin, 1987). Employees with high job satisfaction find themselves in complex and interesting jobs. The more complex the job, the more interesting it becomes, and the more satisfying it is for the worker (Wall & Martin, 1987). Employees who tend to become bored and tiresome with routine jobs will subsequently have a lower job satisfaction. Employers are encouraged to alter job characteristics in order to provide a more interesting work environment for the employee (Wall & Martin, 1987). Skill variety has been shown to induce various psychological states which in turn have a positive impact on job satisfaction (Hackman & Oldham, 1976). Similarly, redesigning job titles or duties has been shown to increase employee motivation. This increased motivation may positively affect and increase the employee's job satisfaction (Campion & McClelland, 1991). However, even interesting and complex jobs may still have potential job stresses associated with them.

Job stress is inherent in almost every job and is a condition or event that requires an adaptive response by an individual (Spector, 1997). An employee being yelled at by a supervisor or rushing to meet a deadline are examples of stressors seen daily in a work environment. War and Payne (1983) demonstrated that certain events at work had caused employees to become emotionally upset which affected not only their temporary but also their long term job satisfaction.

Stress however does not always have to be considered a potential problem, in fact stress can be considered a potential positive in the work place. Stress can increase employee awareness, provide an "edge", and allow for a more intense and interesting work environment (Gieck, 1984). Job satisfaction is negatively affected only when the stressors overwhelm the coping resources of an individual which then affect their physical well-being and hinders job satisfaction (Cooper & Cartwright, 1994). Job stress is also quite individualized. A potential stress for one individual may not affect another. Because of this, listing all potential job stressors is far too cumbersome of a task and therefore it is more important to understand the individual's response to the potential stressor.

Although it may be considered a source of job stress, pay has actually been shown to have a unique relationship with overall job satisfaction (Irvine & Evans, 1995). Pay can both positively and negatively affect job satisfaction (Irvine & Evans, 1995). Although there is evidence that pay fairness is possibly more important then actual pay level (Rice, Philips, & McFarlin, 1990), pay is significantly correlated with job satisfaction. If an employee feels they are being paid a fair amount for the work accomplished and in comparison to similar professions, their job satisfaction will tend to be positive. When pay however is deemed out of proportion to the duties and responsibilities of the employee there can be a negative impact on job satisfaction.

However, as Mensch and Wham (2005) suggested, it may be the lack of professional recognition and not so much the actual dollar amount which ultimately affected job satisfaction for athletic trainers. The importance of professional recognition exceeding actual dollar amounts has been documented in professional athletics. Multi-

million dollar contracts are often rebuffed by athletes when they feel they are not being paid a "market value" based on their peers (Frayne, 1992). Therefore job satisfaction may be related more to the perception of pay then to the actual amount. Even when a positive and engaging work environment is present however, outside factors may have potential effects on job satisfaction.

Work-family conflict is seen when the demands of a job interferes with the demands of the family (Spector, 1997). The literature is consistent in demonstrating a significant correlation between increased work family conflict and decreased job satisfaction (Lewis & Cooper, 1987; Mazerolle, Bruening, Casa, Burton, & Heest, 2006; Rice, Frone, & McFarlin, 1992). Most work family conflict has focused on the role of women in the work force who attempt to balance a family and profession (Hiller & Philliber, 1980). Women tend to place family responsibilities in their definitions of career success and place greater emphasis on balancing a family and career (Rozier, Raymond, Goldstein, & Hamilton, 1998). However, employers are now seeing both sexes inquiring about jobs which allow for a balance of children and family life (Mazerolle, Bruening, Casa, Burton, & Heest, 2006). Balance between family and work no longer is viewed as a luxury, but as a necessity (Lussier, 2006). A proper work family balance can be extremely satisfying if an organization and employees agree on solutions which allow for high productivity and adequate family time (Hill, 2002). Appreciating the balance of family and work is very important and requires the employee to understand their role both in the work place and at home.

Role variables, and in particular role conflict and role ambiguity have been well cited in the research as factors that affect the level of job satisfaction (Bedeian &

Armenakis, 1981; Biers & Murphy, 1970; Spector, 1997). Role conflict occurs when an individual experiences incompatible demands about the functions and responsibilities of their job (Bedeian & Armenakis, 1981). Role ambiguity is the degree of uncertainty the employee has about their functions and responsibilities (Spector, 1997). Role conflict and role ambiguity both have potential to affect job satisfaction (Bedeian & Armenakis, 1981; Kemery & Mossholder, 1987; Klenke-Hamel & Mathieu, 1990).

A high role conflict suggests an individual's expectations of a job are different from the actual demands, which may or may not be because of the job itself. The transition to a new job has the inherent potential to cause high amounts of role conflict. New employees often have difficulty adjusting to the workforce based on unrealistic or inappropriate expectations from their educational experiences (Carr, Pearson, Vest, & Boyar, 2006). As new members enter the work force they often have to become socialized to not only the specific demands of the profession, but also the demands of the organization (Pitney, 2002). The conflict occurs from the differences in the employee's expectations versus the reality of the job responsibilities.

Unlike role conflict which usually has a negative effect on job satisfaction, role ambiguity may have a negative or positive impact on satisfaction. When ambiguity negatively impacts job satisfaction it may be due to an individual's uncertainty on promotion or evaluation, or perhaps an employee is unsure of their job duties and responsibilities and feels inadequate or "lost" at their job (Hardy & Hardy, 1988). This ambiguity places the employee in a less than satisfying work experience.

Although high role ambiguity will often lead to poor performance and low satisfaction, a minimal amount of ambiguity may actually allow for increased job

satisfaction through employee creativity and freedom (Bedeian & Armenakis, 1981). Small amounts of independence and flexibility may actually increase job satisfaction through increased employee productivity and enjoyment (Bedeian & Armenakis, 1981). However, in order to foster such flexibility and independence, it is critical to limit any organizational constraints on the employee.

Organizational constraints are the conditions of the job environment that interfere with employee job performance (Spector, 1997). Peters, O'Connor, and Rudolf (1980) suggested eight constraints that may affect an individual's performance in the work place (Table 1). Job performance has been speculated to directly affect job satisfaction and suggests that as an individual's job performance declines, so does their satisfaction with their job (Peters, O'Connor, & Rudolf, 1980). The following sections will examine each of these eight organizational constraints and how they impact job satisfaction.

Table 1.
Organizational Constraints on Job Performance and Satisfaction (Peters, O'Connor, & Rudolf, 1980).

Source	Definition
Job-Related Information	Information needed to perform assigned job
Tools & Equipment	Specific tools and equipment needed to perform assigned job
Materials & Supplies	Materials and supplies needed to perform assigned job
Budgetary Support	Financial resources needed to perform assigned job, not including salary
Required Services and Help from Others	Services and help needed to perform assigned job
Task Preparation	Personal preparation through formal and informal training needed to perform

	assigned job
Time Availability	Availability of time imposed on the employee needed to perform the assigned job
Work Environment	The physical aspects of the work environment needed to perform the assigned job

Job-related information is the information an employee receives which is needed to do his/her job (Peters, O'Connor, & Rudolf, 1980). This information comes from supervisors, peers, subordinates, policy manuals, etc. The important aspect of this constraint is not necessarily the source of the information as much as the quality of it. If an employee is not receiving adequate information from their supervisor, but rather from a co-worker, their overall job performance and satisfaction may not be greatly affected because the job is still being completed. However, when the information from both the supervisor and co-worker is inadequate, job performance and satisfaction may take a deleterious turn (Peters, O'Connor, & Rudolf, 1980).

Tools, equipment, materials, and supplies refer to the specific items needed to perform the assigned job (Peters, O'Connor, & Rudolf, 1980). Without proper equipment or materials, an individual may not be able to perform or complete all the needed requirements of their job, regardless of how competent they are. Having the proper equipment that is also pleasing to the employee may also affect job satisfaction. For example, an employee's chair may very well be adequate enough for the employee to complete their assigned tasks, however, a more ergonomic chair can provide a more comfortable, productive and satisfying position for the employee (Mayhew, 2005). Understanding not only what the employee needs to be effective, but also what the

employee wants in order to be effective can greatly affect an individual's overall job satisfaction.

Budgetary support refers to the amount of resources which are available to an employee, not including their salary (Peters, O'Connor, & Rudolf, 1980). Having the financial means to perform a particular task has a direct impact on job satisfaction. Employees who cannot accomplish tasks because they cannot purchase the proper equipment or pay for adequate staffing are more likely to become frustrated and dissatisfied with their job.

Required services and help from others refers to the availability of help to employees when it is needed (Peters, O'Connor, & Rudolf, 1980). This is especially important when examining new employees. New employees may have higher levels of uncertainty and feelings of being overwhelmed (Pitney, Ilsley, & Rintala, 2002a). If services and help are not available to these employees to assist them in acclimating to their work environment, their job satisfaction is certainly going to be negatively affected.

Related to services and help, task preparation refers to the formal and informal training needed for an employee to perform their assigned job (Peters, O'Connor, & Rudolf, 1980). Training may help socialize a new worker to not only their work environment, but also what is expected of them, how to achieve success, and how they will be evaluated and assessed (Pitney, Ilsley, & Rintala, 2002a). Proper training may help lower anxiety and reduce potential stressors which could ultimately affect job satisfaction.

Time availability refers to the amount of time available for an employee to perform their job (Peters, O'Connor, & Rudolf, 1980). The less time available to the

employee, the less productive they become. Included in this constraint is the use of multi-tasking. Multi-tasking has become viewed as an endearing characteristic of employees. The more tasks an employee is able to "juggle" the more effective they seem (Laff, 2007). The problem with this system is it actually decreases the amount of time available to perform each task and thus decreases productivity of the employee. The more effective employee focuses on completing one task at a time thereby maximizing their available time.

Work environment is the physical aspects of the immediate work environment needed to complete a job (Peters, O'Connor, & Rudolf, 1980). This includes anything which may help or hinder the worker. Temperature, noise levels, appropriate space, adequate lighting, and safety precautions may all impact the work environment. The typical work environment has been the large office space divided by multiple cubicles in a very structured and rigid form with multiple workers. This work environment is currently undergoing a makeover as employers attempt to better accommodate workers. The classic cubicle work station is no longer viewed as an effective work environment. Companies have now found open multifunctional spaces allow employees to experience more freedom and enjoyment (Lev-Ram, 2006). An employee who can move around an office and work on their laptop anywhere they please is going to be more productive and more satisfied with their job.

Summary of Job Satisfaction

An individual's job satisfaction can be affected in a positive or negative way based on many factors or sources. For instance, prompt employer feedback tends to increase employee job satisfaction (Hackman & Oldham, 1976), whereas employee

work-family conflict tends to decrease their job satisfaction (Mazerolle & Bruening, 2006). Other factors, such as pay can have either a positive (Goldstein, 2001) or negative (Mensch & Wham, 2005) impact on job satisfaction depending on how they are viewed by the employee.

Job Satisfaction in Various Allied Health Fields

Job satisfaction exists in every profession and the nature of the profession may greatly influence job satisfaction. Allied health professions for instance have many unique aspects, such as the responsibility of saving another individual's life, which may potentially affect job satisfaction. Examining the unique aspects of job satisfaction in these professions will help to understand what affects job satisfaction in athletic training.

Job satisfaction within allied health professions has been a major concern since early examination of nurses in the 1940's (Nahm, 1940). Since then, job satisfaction has been studied in various health fields including social work (Herrick, Takagi, Coleman, & Morgan, 1983), medicine (Robinson, 2003), nursing (Coomber & Barriball, 2006; Fochsen, Sjögren, Josephson, & Lagerström, 2005; Gardulf et al., 2005; Irvine & Evans, 1995; Lambert, 2001; Lussier, 2006), occupational therapy (Bailey, 1990a, , 1990b; Burnett-Beaulieu, 1982; Salvatori, Williams, Polatajko, & MacKinnon, 1992), physiotherapy (Wolpert & Yoshida, 1992), and physical therapy (Harkson, Unterreiner, & Shepard, 1982; Ries, 2004).

Research on job satisfaction in athletic training did not begin until the 1980's with Gieck's (1982) study of burnout syndrome and has since focused mainly on athletic trainers in the college or university setting (Barrett, Gillentine, Lamberth, & Daughtrey, 2002; Herrera & Lim, 2003; Pitney, 2006; Pitney, Ilsley, & Rintala, 2002a). To better

illustrate the impact of job satisfaction in athletic training, and due to the similar nature of the professions, examples from physical therapy and nursing will also be briefly discussed in the following sections.

Sources of Job Satisfaction in Athletic Training

Currently known sources of job satisfaction in athletic training include pay (Barrett, Gillentine, Lamberth, & Daughtrey, 2002; Campbell, Miller, & Robinson, 1985), job stress (Mensch & Wham, 2005), professional recognition (McChesney & Peterson, 2005), work family conflict (Mazerolle, Bruening, Casa, Burton, & Heest, 2006), personality (Hendrix, Acevedo, & Herbert, 2000), and gender (WATC, 1996b).

Pay

Pay was first indirectly linked to job satisfaction in athletic training in the 1980's (Campbell, Miller, & Robinson, 1985). Desire to obtain a better job with more money and feelings of being underpaid were the top two factors related to a desire to leave the profession and indirectly as a component for job satisfaction. This was similar to another study that surveyed ATs to determine strengths and weaknesses of the profession and determined poor financial compensation to be indirectly related to job satisfaction (Gieck, Lephart, & Saliba, 1986). However, for the next decade, scholars examined the salary characteristics of athletic trainers in various settings and although they found increases in salaries (Gieck, Lephart, & Saliba, 1986; Moss, 1994) their results did not show the impact of these increases on job satisfaction.

Inadequate financial compensation first emerged as a major source of poor job satisfaction in the late 1990s (Dolan, 1998). However, it was not until the turn of the century that a direct relationship between pay and job satisfaction was firmly established

(Barrett, Gillentine, Lamberth, & Daughtrey, 2002). This study, which surveyed ATs from the twelve NCAA Division I Sports Medicine Departments in the Southeastern Conference, used the Job Satisfaction Survey (JSS) to examine job satisfaction in ATs. The results demonstrated salary and job satisfaction were directly related (Barrett, Gillentine, Lamberth, & Daughtrey, 2002). The results also showed salary as the largest source of job dissatisfaction, and demonstrated a 15% increase in overall job satisfaction with subjects whose salaries were greater than $50,000. This study was significant because it demonstrated a strong and direct positive correlation between salary and job satisfaction. Capel (1990) found a similar relationship in an earlier study between salary and what she termed "enjoyable aspects of the profession". Although the terminology may not have been identical, the importance of establishing pay and financial compensation as a major factor impacting the lives of ATs was a major step in identifying sources of job satisfaction.

A limiting factor however should be noted in the previous study which was the large inclusion of graduate assistants in the sample (Barrett, Gillentine, Lamberth, & Daughtrey, 2002). With graduate assistants typically being paid much less than $50,000 and the job responsibilities of the typical graduate assistant being quite extensive, this may have accounted for lower scores on the JSS. Therefore the results may explain more of a significant problem with the use of graduate assistants in athletic training than overall job satisfaction and salary.

Regardless of the sample however, these results were consistent with prior studies examining job satisfaction in physical therapy where increased salaries were a major source for increased job satisfaction (Goldstein, 2001).

It has been further suggested the pay of athletic trainers has not been commiserate with the hours worked (Mensch & Wham, 2005). The average salary for an athletic trainer in 2005 was $35,976 at the university level, $37,900 in a high school, and $31,790 in a clinic for a 60 hour work week (Mensch & Wham, 2005). A closer examination of the high school salary showed only a $12,000 increase in salary from ten years prior: $37,900 (NATA, 2005) compared to $25,919 (Moss, 1996). Mensch (2005) suggested very few professionals outside of athletic training would work under these conditions for such salaries and further stated that other professions, which demanded similar time and energy as athletic training, were being compensated either monetarily or through prestige. Compensation for athletic training services may be an even greater concern for GAs who may be working similar hours as HATs or AATs for a fraction of the pay.

Although GAs are not considered full-time members of the work force, their impact on the NATA is evident. The NATA membership statistics show that 15% of the 23,304 certified members of the NATA in 2005 were students (NATA, 2006). With 80% of the certified membership having a Master's Degree, it seems likely the majority of these individuals obtained their degree while working as a GA. GAs have been shown to experience even more economic difficulties than full-time ATs, such as HATs or AATs, which ultimately affected their job satisfaction (Barrett, Gillentine, Lamberth, & Daughtrey, 2002).

In addition to graduate assistants, a relationship between financial concerns and job satisfaction has been seen with non-certified athletic training students (Stilger, Etzel, & Lantz, 2001). Non-certified students are not the focus of this review however their importance as the future of the profession cannot be undervalued. Due to hours spent in

the athletic training room, usually without compensation, athletic training students may not have time to devote to a job which might defray the cost of school, living expenses, or even discretionary funds (Stilger, Etzel, & Lantz, 2001). Non-certified athletic training students, who should not be considered staff, may feel many of the same pressures full-time staff members feel (Stilger, Etzel, & Lantz, 2001). It is probable that if non-certified students feel financial pressures from the profession during their education, they may be become dissatisfied with athletic training before they even enter the work force.

The potential consequences of poor pay and job satisfaction have been well researched in the nursing profession where salary was listed as a top three reason for job dissatisfaction (Huey & Hartley, 1988). Close to 70% of the respondents who had an intention to leave the nursing profession claimed to be "completely dissatisfied" (40%) or "slightly dissatisfied" (30%) with their salary. Additionally, even those respondents who planned on staying in the nursing profession were dissatisfied with their salary (Huey & Hartley, 1988). The study illustrated poor financial compensation as a major indicator of job satisfaction.

These results are similar to two studies at Swedish hospitals where dissatisfaction of salary was the number one reason for nurses wanting to quit their jobs (Gardulf et al., 2005) and unsatisfactory salary as the number one contributor to intention to leave (Fochsen, Sjögren, Josephson, & Lagerström, 2005). Unfortunately, the results of the studies did not indicate any of the actual salaries of the nurses but rather based their results from a questionnaire given to the nurses. Therefore the actual salary number itself may not have been the most important factor in job satisfaction but rather the nurses'

perceptions of how their salaries were being set.

Job Stress

Job stress is inherent in almost every job and is a condition or event that requires an adaptive response by an individual (Spector, 1997). The sources of stress in athletic training has been well established in the literature (Campbell, Miller, & Robinson, 1985; Capel, 1986, , 1990; Dolan, 1998; Gieck, 1984; Gieck, Brown, & Shank, 1982; Hendrix, Acevedo, & Herbert, 2000; McLaine, 2005). As Mensch & Wham (2005) suggested job stressors associated with athletic training include working long hours (over 60 hr/week), early-morning, late-evening, and weekend obligations, holiday work, and inadequate staffing numbers. Additionally, poor interpersonal relationships with coaches, administrators, and athletes, unacceptable rules from coaches, helplessness, and a sense of isolation are all stressors which athletic trainers deal with on a daily basis (Gieck, 1984).

Similar stressors such as increased workloads, decreased time available per patient, less reimbursement, work hours being dictated by administrators and payers all have been identified in physical therapists (Ries, 2004). Pearl (1990) suggested negative factors of job satisfaction for physical therapy included paperwork, excessive working hours, and inadequate benefits, many of which are also common in athletic training.

The nursing profession has noted a lack of support from administrators, non-available help, and large nurse-to-patient ratios as the top three factors of job dissatisfaction (Huey & Hartley, 1988). Other factors associated with lower job satisfaction in nurses included limited opportunities, no support from superiors, poor working climate, limited chances for professional career within institution, and work that

is too physically hard (Gardulf et al., 2005).

It is important to remember however that all these job stressors do not always have negative consequences associated with them. In fact limited amounts of stress may in fact improve productivity and provide a heightened awareness of one's surroundings. It is when this stress becomes too great for an individual to cope with that stressors then become a negative influence (Gieck, 1984).

Quality of life issues for athletic trainers may be negatively affected by many factors including the bureaucracy of intercollegiate athletics (Pitney, 2006). Bureaucratic aspects such as increased work volume, lack of support and appreciation from administration, and the hierarchy of authority in Division 1 athletics have been shown to heavily influence athletic trainers and their quality-of-life (Pitney, 2006). The increased pressures on coaches to succeed athletically at the Division I level may potentially increase pressure and stress on athletic trainers.

Job stress may also affect athletic trainers who have dual appointments, working in both a clinical and academic capacity (Staurowsky & Scriber, 1998). Some ATs employed in accredited educational programs have workloads comprised of teaching, clinical assignments to the athletic department, and supervision of athletic training students. For these dual appointment positions, job satisfaction can be affected by overloads in not only clinical assignments, but also teaching and other administrative duties (Staurowsky & Scriber, 1998). Job stress can occur when the multiple aspects of an individual's job description combine to cause an overload.

For GAs, the same stressors are present although the job satisfaction of GAs and interns in athletic training has not been well discussed. A GA or intern position has

become a rite of passage for ATs (Pitney, Ilsley, & Rintala, 2002a) and these temporary or transitional positions are now being viewed as prerequisites to obtaining a collegiate athletic training position (Pitney, Ilsley, & Rintala, 2002a). Many of the stressors GAs are exposed to are similar to the stressors which they will be forced to cope with in the work world (Reed & Giacobbi, 2004). Being exposed to these stressors early in their professional career may have both positive and negative consequences.

GAs who are exposed to stressors may be able to develop coping strategies which they can employ once they enter the work force. These coping strategies can help with their transition into be a full-time clinician or AT. However, if the GA views the stressors they experience during their assistantsip as too imposing, and they do not develop the needed coping strategies, they may become disillusioned with the profession before they even begin their professional careers.

Professional Recognition

A component of stress seldom mentioned is professional recognition (McLaine, 2005). When an AT does not feel their work efforts have been appreciated or recognized, by a coach, patient, or even another health care professional, the feelings of stress and burnout are increased. McChesney et al. (2005) suggested not only do athletic trainers not feel appreciated, they are usually recognized only when an athlete is unable to play due to injury. This type of recognition puts the athletic trainer in a negative light as they are no longer seen as a medical provider, but as a bearer of bad news (McChesney & Peterson, 2005). Repeated negative recognition has not been formally correlated with job satisfaction, however it is extremely plausible to assume such actions would negatively impact job satisfaction.

Work-Family Conflict

Other sources of stress include quality of life conflicts with the work environment. Work-family conflict has been discussed in the literature as a stressor in athletic training (Capel, 1990; Mazerolle & Bruening, 2006). Work-family conflict for athletic trainers may arise from a variety of sources including a lack of time or a poor locus of control (Mazerolle & Bruening, 2006). In regards to time, the average athletic trainer is working 9-10 hours per days, with 60-70 hours per week (Mazerolle & Bruening, 2006), which places time available with family in short supply. If family has been determined to be a major priority, and the time one has available to be with their family is diminished due to working hours, there is a high likelihood for some form of conflict.

Although the amount of time devoted to a job may be a potential source of work-family conflict, how the time is scheduled may be equally important. Locus of control, or the ability to control one's life is extremely important for an AT. The athletic training profession, especially at the college/university setting, is typically very reactive meaning an AT's work schedule is based on practices and games which are constantly being changed outside of their control. This lack of control, combined with the inconsistency and limited flexibility in work scheduling, all contribute to conflicts between personal and work lives. Combining all these factors together, the conflict between work and family may become too much (Mazerolle & Bruening, 2006). Job satisfaction will ultimately suffer when an athletic trainer feels they can not adequately balance their work and family obligations.

Personality

Stress and the variables of hardiness has been examined with ATs in NCAA institutions (Hendrix, Acevedo, & Herbert, 2000). In this study, "hardiness" was defined as a personality construct that reflected control, commitment, and challenge in ones life (Hendrix, Acevedo, & Herbert, 2000). The results determined hardiness was a significant predictor of stress and also a positive influence for stressful experiences. The results further suggested ATs viewed problems as challenging rather than threatening, thereby lowering their job stress and increasing their satisfaction.

Even with increased "hardiness" ATs still may be allowing themselves to become more prone to stress because of over dedication and over commitment. This includes performing travel and meal arrangements, issuing water and towels, and other "non-athletic training" related activities which when added to ones workload becomes overwhelming (Gieck, 1984). This is important when a less experienced athletic trainer tries to impress administrators or supervisors by working longer hours and going the "extra mile" by performing non-athletic training related duties. The more self-inflicted stress athletic trainers accumulate the more likely they will have lower job satisfaction.

Gender

Gender, and in particular being female, has been a factor in job satisfaction in athletic training (P. Perez, Cleary, & Hibbler, 2002). Although conflict with home and workplace responsibilities may affect both genders, research has suggested it may affect females more (P. S. Perez, Hibbler, Cleary, & Eberman, 2006). When job satisfaction was compared with gender, a statistically significant difference was found with female athletic trainers showing lower job satisfaction than their male counterparts. This may be

due to intrinsic variables of social status and moral values being the most satisfying areas for female athletic trainers (Herrera & Lim, 2003). When intrinsic needs such as family balance are not being met, there is likely to be low job satisfaction.

The NATA Women in Athletic Training Committee conducted surveys of males and females in athletic training and discovered that even though males and females demonstrated equal knowledge, skills, and education, females received less financial compensation (WATC, 1996a, , 1996b). These discrepancies in salaries may have contributed to lower female job satisfaction because of feelings of under appreciation and being under-valued. In addition, lack of opportunities, the "good old boy's network", credibility, exclusion from male networks, and work-family conflict all contributed to concerns for female athletic trainers.

Gender however does not seem to affect job satisfaction in physical therapy. Much like in athletic training, female physical therapists earn significantly less than their male counterparts, however unlike athletic trainers, there is no feeling of under appreciation (Rozier, Raymond, Goldstein, & Hamilton, 1998). Rozier et al.'s (1998) results suggested that even with a wage gap, females still rated themselves as successful in their careers. The authors speculated that even though females earned less than their male counterparts, as a whole, the females tended to place more emphasis on their family rather than their professional careers. Therefore, because they were not using economic prosperity as the main measurement of their professional success, they experienced increased job satisfaction (Rozier, Raymond, Goldstein, & Hamilton, 1998).

These results are also seen in the nursing professions where no significant relationship between gender and job satisfaction has been found (Hellman, 1997;

Weisberg & Kirschenbaum, 1991).

Summary of Job Satisfaction in Athletic Training

Job satisfaction in allied health professions is influenced by factors such as pay, job stress, professional recognition, work-family conflict, personality, and gender. These factors may have both positive and negative affects on an individual's overall job satisfaction. In athletic training, the impact of these factors tended to have negative influences on job satisfaction. Increased pay and professional recognition have been found to have direct positive relationships with increased job satisfaction. In contrast, increased job stress and work family conflict have direct negative affects on job satisfaction. Athletic trainers tend to have personality characteristics which allow them to handle stress and potential problems. However, athletic trainers may also allow themselves to have increased levels of stress due to their tendency to perform extra duties outside of the typical athletic trainer job description. In terms of gender, female athletic trainers tend to have higher levels of job dissatisfaction, most of which arises from disproportionate financial compensation when compared to male athletic trainers.

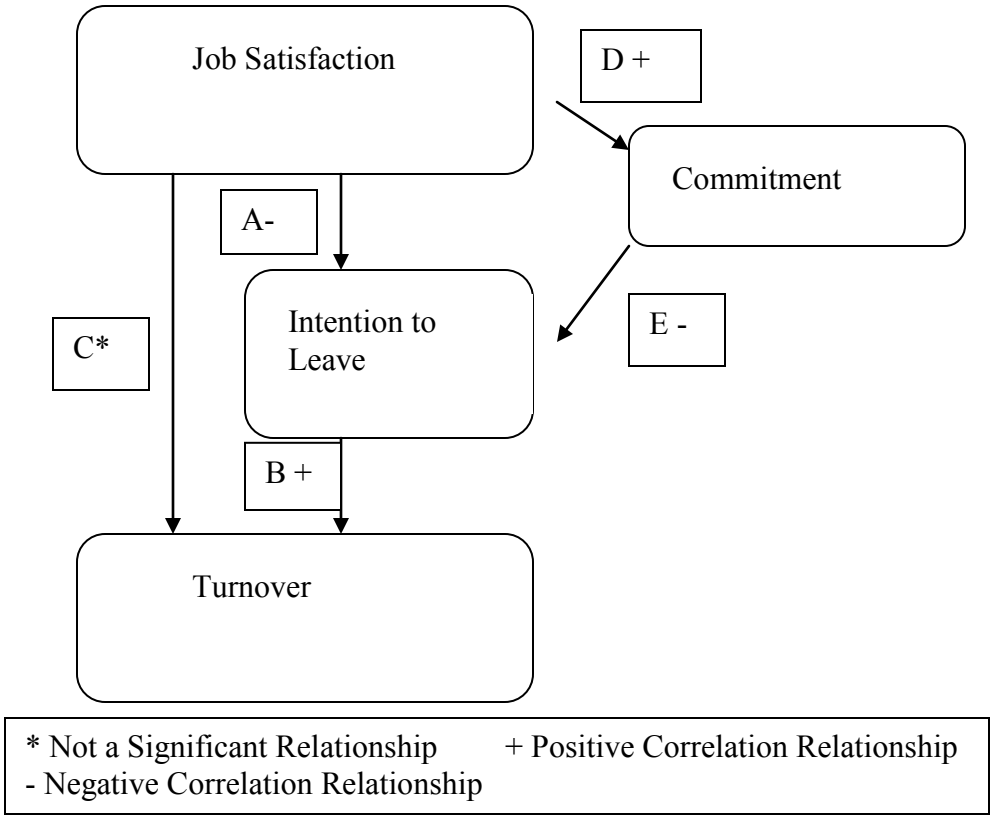
Identifying and understanding the sources of job satisfaction however is only the first step. Understanding the potential consequences of job satisfaction is crucial in order to appreciate the importance of examining job satisfaction.

Potential Consequences of Job Satisfaction

Job satisfaction has many potential consequences associated with it (Figure 1). A direct significant relationship has been shown with job satisfaction and intention to leave (pathway A) (Mobley, Horner, & Hollingsworth, 1978), job satisfaction and commitment (pathway D) (Blau, 2003), commitment and intention to leave (pathway E)

(Nogueras, 2006), and finally intention to leave and turnover (pathway B) (Michaels & Spector, 1982). No significant relationship has been shown between job satisfaction and turnover (pathway C) (Irvine & Evans, 1995). Of all the consequences noted only turnover is considered terminal (Irvine & Evans, 1995) and has the potential for the worst possible consequences for both the individual and profession (Harkson, Unterreiner, & Shepard, 1982). Turnover will be more fully discussed later in this review. The remaining consequences of job satisfaction therefore are considered behavioral intentions and have potential to be changed or altered with a given stimulus (Webb & Sheeran, 2006). The ability to alter the behavioral intentions of an individual before they reach the terminal consequence of turnover may potentially help with lower turnover rates.

Figure 1. Potential Consequences of Job Satisfaction



Job Satisfaction and Intention to Leave

The literature describes intention to leave as the behavioral intention of an individual to voluntarily leave a profession or organization (Coomber & Barriball, 2006; Mobley, Horner, & Hollingsworth, 1978; Steel & Ovalle, 1984). Intention to leave has also been further defined as a major predictor for the terminal action of actual turnover (Mobley, Horner, & Hollingsworth, 1978).

Mobley et al. (1978) was one of the first researchers to study the correlation between employee job satisfaction and intention to leave. Using various service,

technical, clerical, and nursing personnel in an urban hospital their model demonstrated job dissatisfaction produced a series of events which ultimately led to an employee leaving their organization. A major limitation to this study however may have been in the terminology used. The model divided the process of leaving into four separate distinctions along a continuum: 1) thinking of quitting, 2) intending to search, 3) intending to quit, and 4) actual turnover. The correlation between job satisfaction and "thinking of quitting" was significant but steadily declined throughout the continuum to a non-significant relationship with "actual turnover". As an individual's job satisfaction decreased there was a direct and significant impact on their behavioral intentions, but not a significant impact on their actual actions. The relationship suggested that as an individual more actively pursued leaving, job satisfaction became less of an issue for them.

Meta-analysis has been used to determine the relationship between job satisfaction and intention to leave as well as three moderators of age, tenure, and employing organization (Hellman, 1997). The analysis showed a significant negative correlation was present between job satisfaction and intention to leave. The results also demonstrated age and tenure are significant moderators for intention to leave as younger employees and employees with fewer than ten years of tenure had significantly higher intentions to leave. The ability of an employer to retain young and inexperienced workers should be of paramount importance for any organization. A young workforce with high intention to leave has the potential to greatly hinder the growth of an organization or profession (Salvatori, Williams, Polatajko, & MacKinnon, 1992).

A conceptual model of job satisfaction and turnover used meta-analysis to

determine the relationships between job satisfaction and behavioral intentions in nursing populations (Irvine & Evans, 1995). A significant relationship was seen between overall job satisfaction and behavioral intention to leave. The model suggested job satisfaction had three major variables which acted upon it: economic factors (pay, job market), structural factors (work environment), and psychological factors (demographics). No analysis was conducted to determine if any of these variables correlated directly with intention to leave, however all three were found to significantly affect job satisfaction, which in turn indirectly affected intention to leave. If a direct relationship between the various factors of job satisfaction and intention to leave could be established, much more specific and directed intervention solutions can be implemented.

Examining the relationship of job satisfaction and intention to leave in various employment settings also demonstrated a significant relationship (Bedeian & Armenakis, 1981). A causal model of employee intention to leave was developed in which the effects of job satisfaction and intention to leave were examined in nurses. The results showed a significantly strong direct negative correlation between job satisfaction and intention to leave. This model was later tested in another study (Klenke-Hamel & Mathieu, 1990) which examined job satisfaction and intention to leave using four different employee populations: blue collar, staff, engineers, and university faculty and also found a significant negative correlation.

A more recent study demonstrated the turnover intentions in financial officers, certified lawyers, and social workers were significantly affected by both intrinsic and extrinsic factors of job satisfaction (Carmeli & Weisberg, 2006).

Job satisfaction has a significant negative correlation with intention to leave

regardless of employment setting. With such a wide spectrum of employment settings in the literature the generalizability of this relationship seems to be appropriate and universal.

Job Satisfaction and Turnover

Unlike job satisfaction and intention to leave, the relationship between job satisfaction and turnover is a weak non-significant relationship (Irvine & Evans, 1995). Although the literature supports a direct relationship between job satisfaction and turnover, job satisfaction has yet to be proven as a major predictor (Irvine & Evans, 1995; Steel & Ovalle, 1984; Weisman, Alexander, & Chase, 1981). Job satisfaction therefore is not a significant predictor of a terminal action, but rather the behavioral intentions which *may* lead to a terminal action. Resources aimed at improving job satisfaction should therefore target those employees with an intention to leave. Understanding what aspect of their job is dissatisfying may provide solutions to lower their intention to leave.

Job Satisfaction and Commitment

There is limited research regarding the relationship between job satisfaction and commitment. A significant path between job satisfaction and affective occupational commitment, or a person's emotional attachment to an occupation, has been demonstrated (Blau, 2003). Interestingly, the results did not show a significant path between job satisfaction and normative commitment, the sense of obligation to an occupation. The results suggested an individual's emotional attachment to an occupation is affected by their job satisfaction, but that does not necessarily mean they felt obligated to continue in that profession.

Potential Consequences of Commitment

Job satisfaction has been shown to significantly affect commitment (Blau, 2003). Commitment can be seen at both the organizational and occupational levels (Meyer & Allen, 1991). Although no significant relationship has been noted between commitment at either level and intention to leave (Nogueras, 2006), commitment does have some potential negative consequences associated with it.

Commitment and Intention to Leave

The Three-component Model of Organizational Commitment examined the influence of variables on psychological factors which affected organizational commitment (Meyer & Allen, 1991). Organizational commitment was the level of commitment an individual held for their organization based on want, need, and obligation. The model suggested a causal relationship between organizational commitment and intention to leave an organization. The more committed an individual was to an organization the less likely they were going to leave the organization. Organizational turnover does have negative aspects associated with it, however organizational turnover is still considered much less severe to a profession than occupational turnover (Bluedorn, 1982).

Occupational commitment, or the commitment an individual held for their occupation or profession, and occupational intention to leave in nurses was examined in a recent study (Nogueras, 2006). The results suggested significant relationships between affective commitment and intention to leave, normative commitment and intention to leave, and continuance commitment and intention to leave. The relationship of affective commitment and intention to leave was supported by another study whose results

described a significant negative relationship between these variables and suggested the stronger one's commitment the less likely they intended to leave (Carmeli & Weisberg, 2006). These results further emphasized the connection between occupational commitment and intention to leave the occupation. Individuals with a low commitment to the profession will be significantly more likely to simply leave the profession altogether.

Additionally, limited research has suggested a clear relationship between organizational commitment and occupational intention to leave (Meyer, Allen, & Smith, 1993). As an individual's organizational commitment decreased there was an increased potential not only for them to leave to organization but also the occupation all together. Therefore, limiting intention to leave from both a organizational and occupational aspect is of great importance due to the possible consequences.

Potential Consequences of Intention to Leave

Intention to leave an organization or profession has serious consequences including turnover from the profession (Hellman, 1997; Irvine & Evans, 1995; Mobley, Horner, & Hollingsworth, 1978). Research has shown a direct correlation with increased intention to leave as a significant predictor of actual turnover. Understanding this connection can provide employers with solutions to intervene and lower an individual's intention to leave. By lowering their intention to leave there is a less likely chance they will leave.

Intention to Leave and Turnover

Understanding the behavioral intentions of turnover is extremely important in preventing negative consequences of intention to leave (Fishbein & Ajzen, 1975). Behavioral intentions have been demonstrated to be the primary antecedents and

predictors of the actual behavior of turnover (Fishbein & Ajzen, 1975). Therefore, in order to understand turnover, one must first understand the behavioral intentions.

The linkages in the employee withdrawal process has become a classic in the turnover literature (Mobley, Horner, & Hollingsworth, 1978). The two most significant points of interest are the demonstration of turnover being a series or process of events and the significant relationship between intention to leave and turnover. As the behavioral intention to leave increases, so does the likelihood of the actual terminal action of leaving.

Research has found the only significant relationship with turnover was intention to quit (Mobley, Horner, & Hollingsworth, 1978). The results demonstrated this behavioral action of intending to leave was a better predictor of turnover than job satisfaction, thinking of quitting, or intending to search. In fact, these results finally established intention to leave as the main antecedent to turnover. Similar results have further supported this model and found significant correlations between intention to leave and turnover (Weisman, Alexander, & Chase, 1981).

A later study used a path-analysis based on Mobley et al.'s (1978) model to examine the relationship of intention to quit on turnover (Michaels & Spector, 1982). The results supported the model and suggested a highly significant relationship between intention to leave and turnover (Michaels & Spector, 1982). This was later supported by another meta-analysis study which also demonstrated a significant mean correlation between behavioral intentions to leave and turnover (Steel & Ovalle, 1984).

The literature seems to agree that intention to leave is the main predictor for turnover. Job satisfaction has demonstrated a significant impact on intention to leave as

well as commitment both at the organizational and occupational level. Job satisfaction has a direct connection to turnover, but the relationship is not very strong. Understanding what factors affect turnover may provide employers and employees with potential solutions to limit turnover. Turnover, as the following sections will demonstrate, is a potentially crippling problem which many professions are facing.

Turnover

The examination of job turnover has been ongoing since the 1960's with numerous studies and various models having been developed in an effort to identify factors which predict turnover (Cavanagh, 1989). Although a complete discussion and analysis of turnover is beyond the scope of this review, it is important to understand the basic definitions and consequences of turnover.

Definitions of Turnover

Organizational and occupational are the main types of turnover noted in the literature. Both types of turnover involve the movement of staff or employees, however they differ in where the movements occur. Organizational turnover describes a movement within an organization or profession (Coomber & Barriball, 2006; Harkson, Unterreiner, & Shepard, 1982; Hellman, 1997; Mobley, Horner, & Hollingsworth, 1978) whereas occupational turnover is movement from one profession to another (Bailey, 1990a; Capel, 1990; Cowin & Hengstberger-SIms, 2006; Fochsen, Sjögren, Josephson, & Lagerström, 2005). Occupational turnover in particular is a major concern as research has shown it can very detrimental to an organization, profession, and individual (Lee, Carswell, & Allen, 2000). Regardless of the type, turnover refers to a behavior of voluntarily separating or quitting a current organization or occupation (Bluedorn, 1982). This

consistently presents a problem in turnover research for two reasons. First, the literature is undecided on when retiring, dismissed, or voluntarily leaving employees should be included in sampling, providing inconsistent sample inclusion criteria (Coomber & Barriball, 2006). Second, data on employees who leave, especially those who voluntarily quit or are dismissed, is difficult to collect (Bluedorn, 1982).

Consequences of Turnover

Turnover is usually viewed from a negative perspective at both the organizational and occupational levels (Cavanagh, 1989). Both organizational and occupational turnover have potential negative effects such as financial difficulties (Hellman, 1997) or worker shortages (Gauci-Borda & Norman, 1997; Nogueras, 2006) associated with them. Additionally, both types of turnover may lead to new and increased responsibilities on the remaining personnel (Harkson, Unterreiner, & Shepard, 1982), loss of efficiency by the leaver prior to the separation (Cavanagh, 1989), and possible elimination of positions that are not filled (Bailey, 1990a).

Turnover has been also been described as a vicious cycle when one employee leaving triggers others to follow (Staw, 1980). Individuals who had no previous intention to leave an organization may now consider it following a co-worker's absence. The increased stress and load of work on the remaining staff, combined with decreased morale from the staff reduction may promote even further turnover (Staw, 1980).

In contrast, some literature has suggested employee turnover may have some positive benefits. Employee mobility allows for change and progress to occur which may in fact improve the effectiveness of the organization (Pfeffer, 1976). This idea is shared throughout the literature where spreading of ideas and skills throughout a profession not

only broadens the base of knowledge (Harkson, Unterreiner, & Shepard, 1982) but also avoids the "groupthink" idea where similar ideas are constantly recycled within the same organization (Janis, 1972).

The literature overall however seems to support the notion of more negative than positive consequences associated with turnover. The importance of determining the magnitude of turnover problems amongst various occupations will help illustrate if these problems are isolated to particular professions or more global in nature. Athletic training, physical therapy, and nursing all share common work demands and responsibilities and reviewing turnover in these professions is certainly appropriate to determine the magnitude of the problem.

Athletic Training Turnover

Limiting turnover and increasing employee retention will be of paramount importance for athletic trainers now and in the coming years. The profession of athletic training is expected to continue to change and grow over the next decade (Lockard, 2005). The United States Department of labor predicts the profession of athletic training will be increasing 10-26% over the next ten years and there will be an increased market demand for ATs in order to meet these market demands (USDOL, 2006). Unfortunately, over the past five years the NATA has shown a disappointing trend in membership rates suggesting the profession may not be able to meet these predictions.

NATA Membership

NATA membership consists of athletic trainers of various categorization employed in various settings. There are five membership categories: 1) certified, 2) associate, 3) certified student, 4) international, and 5) student. The categories of

"certified" and "certified student" are by far the most populous and combined account for approximately 80% of the total membership (NATA, 2006). The membership is also divided into seven primary employment settings: 1) secondary schools, 2) colleges and universities, 3) professional sports, 4) hospitals, clinics, physician offices, and sports medicine clinics, 5) military and law enforcement, 6) industrial and commercial, and 7) performing arts. College and universities account for 20% of the certified membership (NATA, 2006). The main focus of this review will be certified and certified students in college and university settings.

The NCAA is comprised of colleges, universities, and conferences in the United States and territories. An active member is a four-year college or university or a two-year upper-level collegiate institution accredited by the appropriate regional accrediting agency (NCAA, 2007). There are three divisions to the NCAA each with admission criteria. Division I includes large universities and conferences whereas Division III are typically much smaller colleges.

Although membership to the NATA is currently optional, membership numbers have seen a steady increase starting in the mid 1970's and continuing through to 2005 (NATA, 2006). However, recent membership numbers have shown a decline for the first time in history (NATA Board of Directors, 2007). Between 2000 and 2005 there was a 3,433 increase in total membership, however the sum of new members for those years totaled 20,099. These data suggest an approximate attrition of 16,666 members of the NATA. Additionally, the NATA reported a 1.2% decrease in membership numbers from 2005 to 2006 (NATA, 2006). Attracting new membership does not seem to be the problem as roughly 3,000 new members are added annually. The problem therefore

seems to arise from current members not rejoining and thus a loss of existing members.

This has raised such a concern that the NATA Board of Directors addressed the slumping membership at the 2007 Annual Board of Directors Meeting. The Board suggested students and young professionals no longer automatically join the NATA and those who do are not renewing their membership (NATA Board of Directors, 2007). The Board also voted to hire a consultant to address this issue as understanding the causes of this attrition will be a major focus for the future of athletic training.

Certified Athletic Trainer Membership

The membership numbers of the NATA alone do not fully explain the severity of the problem regarding attrition in athletic training. Using membership data to track the attrition of athletic trainers has two potential problems, the first being membership is open to non-ATs, and the second being membership is optional. The first problem deals with the categories of NATA members. The membership categories of "associate", "international", and "student" create a problem in interpreting the true severity of membership attrition because "associate" and "student" members are not certified and "international" members may or may not be certified. The inclusion of these membership categories in the total membership may provide false information regarding any increase or decrease in certified membership. The significance of this is the fact that only ATs are available to work clinically as athletic trainers and therefore membership data may not provide a true picture of the effects of attrition on the eligible workforce.

The second potential problem stems from membership to the NATA being optional. Although encouraged, ATs may or may not be members of the NATA. This theoretically could mean there are ATs working in clinical capacities who are not

accounted for in membership statistics, however the impact of this seems minimal. According to Shannon Leftwich, the Director of Credentialing Services at the Board of Certification Inc., in 2005 there were 28,468 active ATs (Shannon Leftwich, personal communication, 8/30/2007). The NATA membership statistics in 2005 reported 24,676 certified members when combining regular certified and student certified members (NATA, 2006). This means approximately 87% of the active ATs in 2005 were also members of the NATA. Although using membership statistics seems to discount 13% of active ATs, it is probable the impact of this is minimal.

Physical Therapy Turnover

Physical therapy has shown a slightly different trend of membership over the years than athletic training. Similar to athletic training, membership to the American Physical Therapists Association (APTA) is optional, and whereas athletic training has always been steadily increasing, physical therapy has been up and down. In 1993 the total membership to the American Physical Therapy Association (APTA) was 61,149 and increased to 75,029 in 1997. Unlike athletic training however, physical therapy experienced a steady decline in membership after 1997 hitting a low of 63,105 in 2002. Most of this was due to the passing of the Balanced Budget Act of 1997 (BBA) (Ries, 2004). The BBA placed a $1,500 cap on outpatient rehabilitation services provided through Medicare. Numerous physical therapists (PTs) were laid off as billing services were decreased. Interestingly, prior to the BBA of 1997, physical therapy was the third fastest growing profession in the United States as cited in the Seventh Report to the President and Congress on the Status of Health Personnel in the United States in 1990 which projected an 87% increase in positions available for PTs (Shanahan, 1993). It was

also speculated that the supply of PTs would not clear their market need in the next ten years and thus there would always be a shortage of PTs needed to fulfill all the job settings available to them (Shanahan, 1993). The passing of the BBA obviously affected those predictions, but physical therapy has rebounded well since 1997 and as of 2006 the membership levels seemed to have recovered and numbered 68,114.

Nursing Turnover

Contrary to retention issues in athletic training, nursing is actually experiencing a shortage of qualified professionals to meet market demands. Membership to the American Nursing Association (ANA) is a potentially poor indicator of accurate turnover rates for various reasons. First, much like athletic training and physical therapy, membership to the ANA is optional and some active nurses may not be members. Second, nursing is unique due its vast array of specialties such as cardiology or pediatrics. The majority of these specialties have separate membership associations. Specialty nurses may feel more inclined to join a specialty nursing association rather than the larger ANA. Even given some of these limitations, however some general trends can still be established (ANA, 2006).

Nursing has always seemed to be facing a shortage of qualified individuals and is currently expecting a shortage of registered nurses (RNs) in excess of 275,000 by the year 2010 (ANA, 2005). In addition, nursing is seeing a dramatic number of prospective students being turned away from nursing school. Due to insufficient numbers of nursing faculty, there is an inadequate number of qualified individuals to teach the entry-level baccalaureate nursing programs. In 2004 more than 26,000 qualified applicants were turned away from these programs due in large part to lack of faculty (ANA, 2005).

Combine these problems with the aging and retirement of practicing nurses and the large numbers of nurses that leave the profession for other employment (Nogueras, 2006), and the nursing profession is suffering a major worker shortage.

Summary of Turnover

Athletic training, physical therapy, and nursing all have unique problems regarding their membership. Athletic training is suffering from turnover of its clinicians but compensating with enough new members to off-set any losses. Physical therapy suffered a major blow to their membership rates due to federal legislation in the late 1990's but voluntary turnover was not a major factor for physical therapy, and in fact the membership numbers have rebounded and have increased in recent years. Nursing is suffering from a major worker shortage due to a combination of factors, most notably the inability to attract and produce new nurses to satisfy the job market. Whereas athletic trainers and physical therapists seem to be producing adequate amounts of new members, nursing is not. The importance of recognizing the differences and similarities between these professions is that although they all have unique situations, they all demonstrate the need to attract and produce new clinicians, while also retaining experienced

Summary

The goal of this review was to provide rationale for examining the causes and consequences of job satisfaction and intention to leave in athletic training. While direct significant relationship have been shown with job satisfaction and intention to leave (Mobley, Horner, & Hollingsworth, 1978) and intention to leave and turnover (Michaels & Spector, 1982) in various professions, the effect of job satisfaction and intention to leave in athletic training is still unknown. The ability to alter the behavioral intentions of

an individual before they reach the terminal consequence of turnover may potentially help with lower turnover rates in various professions, including athletic training.

Athletic training is suffering from turnover of its clinicians but compensating with enough new members to off-set any losses. Recent numbers however suggest that new membership is no longer off-setting these losses and membership numbers are declining for the first time. Therefore there is clearly a need to attract and produce new clinicians, while also retaining experienced ones. Increasing job satisfaction seems to be an effective method for helping to retain clinicians.

Currently athletic trainers are employed in numerous job settings including the college and university. College and university athletic trainers are characterized as clinical, academic, or dual appointment and work in all three Divisions of the NCAA. While factors which affect job satisfaction have been identified in athletic training, more work is needed to understand how these factors are affected by NCAA division and employment status. Additionally, no work has been completed to explain the consequences of job satisfaction and intention to leave in athletic training.

CHAPTER III

METHODS

This chapter describes the methods used in the collection and analysis of data for this investigation. The subject selection process, timetable, data collection, and instruments used in this study are discussed. Statistical procedures used in analyzing the data are outlined also. This descriptive study used a quantitative Web-based, cross-sectional design. The study was reviewed and approved by the Institutional Review Board at the University of North Carolina at Greensboro before any data was collected.

Subjects

ATs who were members of the National Athletic Trainers' Association (NATA) were contacted via e-mail and asked to participate in an electronic survey research study. Subjects were not identified to the investigator from the mailing list provided by the NATA Membership List Rental.

The population of respondents for this study included ATs that indicated in their NATA Membership Profile they were:

1. currently employed in a university or college setting.
2. listed as "Certified" or "Certified Students".
3. worked in one of the 10 NATA Districts.
4. had an e-mail address available for contact.

In order to qualify for participation, volunteer participants must also have met the following inclusion criteria:

1. Be employed at a National Collegiate Athletic Association (NCAA) Division I, II, or III institution.

2. Had the Primary Employment Classification as either "clinical" or "dual appointment".

Sampling Frame

This study utilized a sampling frame based on the 10 NATA Districts. The entire available population of NATA District 3 (n=463) was solicited as well as random samples from the remaining 9 NATA Districts. All NCAA institutions within these districts were eligible units for the study.

Inclusion Criteria

The sample pool was intended to be all ATs in NATA District 3 who meet the initial inclusion criteria of being 1) a Certified Athletic Trainer, 2) employed in NCAA college or university, and 3) a member of the NATA. The original target sample size was 1,000, however only 463 individuals in district 3 met the inclusion criteria. Therefore, in order to increase the size of the sample a random selection of 540 additional individuals (60 ATs from each of the remaining 9 NATA districts) were selected to achieve a sample pool of 1,003.

Instrumentation

An electronic survey with three sections was distributed via the Internet (Appendix A). The first section consisted of demographics including gender, NCAA division, NATA district, number of years as a Certified Athletic Trainer, primary job title, and primary employment classification. Each category had a drop down menu with

pre-determined available choices. All questions must have been answered before continuing to the next section of the survey.

The second section of the survey was the Job Satisfaction Survey (JSS) (Spector, 1997) consisting of 36 items (Appendix A). The JSS assessed various subscales of job satisfaction. Table 2 lists the nine subscales and their corresponding survey item numbers. Each of the nine subscales contained four items and a total satisfaction score could be computed by combining all 36 items.

Table 2.
Subscales and Corresponding Item Numbers of the JSS (Spector, 1997).

Facet	Item Number
Pay	1, 10r, 19r, 28
Promotion	2r, 11, 20,33
Supervision	3, 12r, 21r, 30
Fringe benefits	4r, 13, 22, 29r
Contingent rewards	5, 14r, 23r, 32r
Operating conditions	6r, 15, 24r, 31r
Coworkers	7, 16r, 25, 34r
Nature of work	8r, 17, 27, 35
Communication	9, 18r, 26r, 36r

NOTE: Items marked with "r" were reverse-scored

The scoring of the JSS used a 6-point Likert Scale. A numerical value of 1-6 was assigned to each response with 1 corresponding with "Disagree Very Much" and 6 corresponding with "Agree Very Much". Scoring for each item was performed automatically by the survey software following the completion of the survey. It should be noted some responses were scored in a positive and some in a negative direction. A positively worded item was one for which agreement indicated job satisfaction. A

negatively worded item is one for which agreement indicated job dissatisfaction. Before the items were combined, the negatively worded items were reversed automatically during data entry. Therefore, people who agreed with positively worded items and disagreed with negatively worded items had high scores, which represented higher job satisfaction.

The JSS was designed to produce 10 scores (nine subscale scores and one total score). The total job satisfaction score would be the sum of the responses for all 36 items. Subscale scores were the sum of the appropriate items as shown in Table 2. An individual subscale score could have ranged from 4 to 24, and the total score could have ranged from 36 to 216.

The third section was the Intention to Leave Survey (ITLS) and consisted of a series of questions to determine a respondent's intention to leave the profession of athletic training (Appendix A). The responses were presented in a 4 point-Likert scale. Three of the items were intended to determine how often a subject had considered leaving the profession of athletic training with possible responses ranging from 1 = Never, 2 = A little, 3 = A lot, 4 = Constantly. One item was intended to determine how actively an individual had pursued leaving the profession of athletic training with possible responses ranging from 1 = I have done nothing, 2 = I have made inquiries into jobs outside of AT, 3 = I have applied to jobs outside of AT, 4 = I have accepted jobs outside of AT. The remaining items were intended to judge the probability of staying in the profession of athletic training with responses ranging from 1 = Excellent (75-100%), 2 = Good (50-74%), 3 = Fair (25-49%), 4 = Poor (0-24%). Subjects who scored "Poor (0-24%)" on questions related to working in another field other than athletic training were

automatically redirected to two follow-up questions designed to determine the probability of retaining their credential as a Certified Athletic Trainer (ATC) and membership to the NATA. Therefore, the minimal number of questions that may have been answered in this section was seven, however based on their responses; subjects had the potential to answer as many as 11 questions. All of the responses were assigned a numerical value of 1-4 with a value of 1 corresponding to a lower intention to leave the profession of athletic training, and a 4 corresponding to a higher intention to leave. Two of the items were reversed scored to remain consistent with a higher value equaling a higher intention to leave the profession.

Reliability Analysis

To ensure the subscales as reported by Spector (1997) were accurate, a principle components analysis (PCA) was calculated for all 36 items to determine how many subscales of the JSS were present. A PCA is designed to take a large set of variables, in this case the 36 items of the JSS, and systematically reduce them to smaller and more coherent set of variables, in this case the subscales of job satisfaction (Dunteman, 1989). Internal consistency for each of the subscales was then measured using Cronbach's coefficient alpha. Cronbach's alpha is a measure of internal consistency of an instrument and can be used when administering the instrument only once (Gay & Airasian, 2000). The commonly accepted minimum standard for internal consistency is 0.70 (Nunnally, 1978), meaning any value below 0.70 should be addressed as a potentially poor item.

The PCA of the JSS revealed eight separate subscales of the JSS. The complete rotated component matrix for all 36 items is provided in Appendix D, Table 16. The subscales of *supervision, pay & rewards,* and *fringe benefits* showed good internal

reliability as they were all over 0.80. The subscale of *operating conditions* demonstrated the lowest internal reliability of only .69. The eight subscales and their respective alpha coefficients on standardized items are presented in Table 3.

Table 3.
Reliability Analysis (Cronbach's α) for the Subscales of the Job Satisfaction Survey Based on the Principle Components Analysis.

Subscale	**Alpha Coefficient**	**N of Items**
Supervision	.89	7
Pay & Rewards	.87	7
Fringe Benefits	.83	4
Promotion	.75	4
Nature of Work	.76	4
Coworkers	.78	3
Operating Conditions	.69	2
Communication	.75	3

Based on the PCA, two items were excluded from data analysis. Item #15 "my efforts to do a good job are seldom blocked by red tape" did not align itself well with any of the eight subscales. The best fit was the subscale of *coworkers*, however at -.386 it simply was too low to provide any meaningful data to the subscale and was therefore eliminated. In addition, item #6 "many of our rules and procedures make doing a good job difficult," did not align with any of the subscales and was left as its own group. It would not have been possible to draw any conclusions from a subscale which contained only one item and therefore it was also excluded from further analysis.

The original subscales as proposed by Spector (1985) each had four items in them. The new grouping however had the subscales of *supervision* and *pay & rewards* each with seven items in them. This produced a potential problem as the subscales of

coworkers and *communication* were left with only three items in each and *operating conditions* had only two items. From a reliability perspective, as well as a construct validity argument, it is concerning that *operating conditions* should only have two items associated with it. Further, visual inspection did not provide any feasible manner for which to append those particular items to other subscales. It was therefore determined to leave *operating conditions* as its own subscale and recommend caution when discussing any significant findings regarding it.

The Intention to Leave Survey (ITLS) was measured for internal consistency in a similar manner as the JSS. Reliability was assessed using a Cronbach's alpha. The overall reliability for all seven items of the ITLS was very good (.86). The PCA however suggested that there were probably two separate components (scales) underlying the data. The PCA of all 7 items of the ITLS and the total reliability are presented in Table 4. Reliability analysis of these items most strongly loading to each of the two components showed Cronbach's alpha coefficients of .83 and .78 for the separate scales. Although these values were adequate, the logical interpretation of the two components simply did not provide any additional meaning to the ITLS. Logical interpretation simply determines if the items which are grouped together make sense regardless of their statistical consistency. For the ITLS, although the PCA revealed these two separate components, the items were not easily interpretable and did not seem to divide into two distinct and easily labeled groups. Therefore, only one combined component (scale) was used.

Table 4.
Principle Component Analysis Weights (Varimax-Rotated) for the Seven-Item Intention To Leave Survey.

	Component 1	Component 2
ITLS item #3	**.85**	.21
ITLS item #6	**.84**	-.03
ITLS item #5	**.65**	.58
ITLS item # 2	**.64**	.46
ITLS item #7	-.04	**.84**
ITLS item # 4	.25	**.82**
ITLS item # 1	.49	**.70**
Total Reliability = .86		

Pilot Testing

Pilot testing was conducted to test the feasibility of using a Web-based electronic survey protocol and to calculate inter-item reliabilities of both the JSS and ITLS. Fifteen ATs were chosen by convenience and included ATs employed in NCAA Divisions I, II, and III outside of NATA District 3. The contact design procedure proposed in this investigation was utilized for the pilot testing. The initial e-mail solicitation resulted in responses for 10 of the 15 potential respondents. A second e-mail solicitation was sent to those who had not completed the survey asking for their participation. All 15 respondents had completed the survey by the end of the week following the second solicitation.

For the JSS, internal consistency measures were used to ensure that subscale items were appropriately grouped together to properly assess a particular subscale construct. For pilot testing, no PCA was conducted and reliability was conducted based on Spector's (1997) original nine subscales and total job satisfaction score. The coefficient alpha for the JSS had previously been established at 0.91 for the entire 36-item survey with subscales ranging from 0.60 to 0.82 (Spector, 1997). An item-analysis

of pilot data was calculated using a Cronbach's coefficient alpha for each of the nine subscales of the JSS (Appendix D, Table 17). None of the nine subscales correlated 0.80 or greater with another ensuring each subscale was in fact measuring a separate construct. During pilot testing, the coefficient alpha for the nine subscales ranged from 0.63 for the *coworkers* subscale to 0.93 for the *contingent rewards* subscale (Appendix D, Table 18). The low coefficient for the *coworkers* subscale may have been to due to the extremely poor correlation of item #34: "there is too much bickering and fighting at work" with the other three items in the subscale (Table 5). Removal of this item and recalculation produced a coefficient alpha of 0.77 which is a more acceptable value (Table 6). The range of scores for the pilot testing seemed to be consistent with the literature (Spector, 1997) and visual inspection suggested a higher correlation for eight out of the nine possible subscales for the pilot study over the technical manual's norms (Spector, 1997).

Table 5.
Cronbach's Alpha for "Coworkers" Subscale for the Job Satisfaction Survey.

	Item # 7	Item # 16	Item # 25	Item # 34
Item # 7	1.00	0.67	0.52	0.01
Item # 16	0.67	1.00	0.58	0.22
Item # 25	0.52	0.58	1.00	0.17
Item # 34	0.01	0.22	0.17	1.00
Cronbach's Alpha = 0.63				

Table 6.
Cronbach's Alpha for Modified "Coworkers" Subscale for the Job Satisfaction Survey.

	Item # 7	Item # 16	Item # 25
Item # 7	1.00	0.67	0.52
Item # 16	0.67	1.00	0.58
Item # 25	0.52	0.58	1.00
Cronbach's Alpha = 0.77			

The ITLS was administered in conjunction with the JSS to the same 15 respondents. Cronbach's alpha demonstrated a 0.85 internal consistency for all 7 items (Appendix D, Table 19). This indicated all seven items of the ITLS were describing the same construct of intention to leave the profession of athletic training. The value of 0.85 was well within the acceptable range and therefore no modification was needed to the instruments.

Procedures

Once the potential list of participants was assembled, all individuals meeting the inclusion criteria were contacted via an initial e-mail solicitation asking for their participation. The e-mail included a brief description of the survey and a description of how consent was obtained (Appendix B). Passive informed consent was given by the respondent's submission of the survey. They were directed to a web site address URL at: http://www.surveymonkey.com/s.aspx?sm=PHcTUZM5wDKQItsPT9XPzA_3d_3d inviting them to complete an on-line survey.

Two weeks after the initial electronic e-mail solicitation, the original e-mail solicitation was resent to all potential participants (Appendix C). Due to the solicitation method utilized by the NATA, subjects who had already completed the survey were not removed from the original solicitation list. Therefore, a disclaimer was added to the second e-mail. The disclaimer requested those who had already completed the survey to ignore the follow-up solicitation. The investigation consisted of a total of 3 weeks of data collection.

Data collection was conducted via the World Wide Web and a server based data management system, www.surveymonkey.com. Surveymonkey is an on-line survey

system which allows users to create survey forms which are accessible via the web and can securely store the data. Data was backed up daily on a password protected flash-drive which only the principle investigator had access to.

Data Reduction

All scores for the JSS and the ITLS were collected automatically by Surveymonkey and then downloaded into an Excel spreadsheet. Separate scores for each of the subscales of the JSS and a composite score for the sum of the responses on the ITLS was calculated for each respondent. The SPSS spreadsheet automatically calculated the nine subscales of the JSS and total composite scores of the ITLS. Descriptive statistics of central tendency and frequency distributions were collected for demographic information. Inter-item reliability for both the JSS and the ITLS was calculated using Cronbach's coefficient alpha.

Statistical Analyses

Hypothesis 1a: ATs in NCAA Division I will have significantly higher overall total job satisfaction scores than ATs in NCAA Division II and III.

Hypothesis 1b: GAs will have significantly lower overall job satisfaction scores than HATs or AATs regardless of NCAA Division.

1. To test hypothesis 1a and 1b, a factorial ANOVA was used to examine whether NCAA division or primary job title affected any of the subscales of job satisfaction.

Hypothesis 2a: ATs in NCAA Division II will have significantly higher overall intention to leave scores than ATs in NCAA Divisions I and III.

Hypothesis 2b: GAs will have significantly higher overall intention to leave scores than HATs or AATs regardless of NCAA Division.

2. To test hypothesis 2a and 2b factorial ANOVAs was used to examine whether NCAA division or primary job title affected the total intention to leave score.

Hypothesis 3: All job satisfaction subscale scores will have a significant negative correlation with the overall intention to leave score.

3. To test hypothesis 3, a step-wise multiple regression was used to determine the relationships between the job satisfaction subscale scores and total intention to leave score.

Hypothesis 4a: The job satisfaction subscales of *promotion* and *coworkers* will be significant predictors of the overall intention to leave score.

4. To test hypothesis 4a and 4b, a step-wise multiple regression was used to determine which of the subscales of job satisfaction predicted the total intention to leave score.

Post Hoc Analysis

When a significant *F* test was identified from the previous analyses, a Tukey's HSD post-hoc analysis was conducted to determine the group differences.

CHAPTER IV

RESULTS

The purpose of this study was to examine the job satisfaction and intention to leave the profession of athletic training using a sample of ATs employed in the college or university setting. This chapter presents the statistical analyses examining job satisfaction and intention to leave the profession of athletic training. A discussion of the sample size and demographics, response rate, and the reliability of the JSS and ITLS is also included. This chapter is organized into sections which will address the research questions examining job satisfaction and intention to leave across NCAA division and primary job title, the correlation between job satisfaction and intention to leave, and the job satisfaction predictors of intention to leave.

Sample Size and Response Rate

Of the 1,003 eligible respondents, 27 contacted the investigator and indicated they were not eligible for the study. The main reason for their exclusion from the study was not meeting the employment setting criteria (n=17), however spam guards, e-mail mailbox errors, and other administrative difficulties also resulted in exclusion (n=10). Elimination of these respondents reduced the total sample size of eligible respondents to 976. A total of 286 responses were collected from the 976 eligible units for a response rate of 29%.

Exclusion Criteria

This investigation was mainly concerned with examination of ATs employed in a clinical capacity and therefore individuals employed in a full-time academic capacity (n=46) were filtered from the dataset. In addition, 27 respondents failed to complete all three sections of the study. These data were also eliminated from further analysis. A final filter was applied based on primary job title. Although there were initially 12 different types of primary job titles collected, only head athletic trainer, assistant/associate athletic trainer, and graduate assistant/intern athletic trainer had adequate numbers of respondents. No other primary job title had over 10 respondents, and therefore these data (n=22) were eliminated from further analysis (Table 7). After all exclusion criteria and filters were accounted for, a total of 191 respondents were used in the data analysis.

Table 7.
Number of Responses by Primary Job Title.

Head Athletic Trainer	63
Assistant/Associate Athletic Trainer	103
Graduate Assistant/Intern Athletic Trainer	25
Athletic Training Faculty Full-Time	6
Clinical Education Coordinator	2
Program Director	2
Non-Student Part-Time Certified	0
Contract Part-Time Certified	5
Clinical Athletic Trainer/Ortho Tech	1

Provides Services when needed, short on staff at certain times of the year, or if ATC is out sick	1
Associate Director of Sports Medicine	1
Physical Therapist Asst. Athletic Trainer	1
Athletic Trainer/Instructor	1
Director of Rehabilitation	1
ATC, Professor, Clinical Coordinator, Program Director	1

.

Description of the Sample

Demographics

One hundred and ninety-one individuals met all inclusion criteria and therefore participated in this study. A summary of the *gender, NCAA division, NATA district, number of years certified,* and *primary employment classification* demographics is presented in Table 8. The participants represented all 10 NATA Districts and all three NCAA Divisions and included both full-time clinical and dual appointment positions.

A note is needed with regards to *NATA district* response rate. Due to an error in the instrument, NATA district demographic information was not collected on the first 63 respondents of the survey. This error was quickly remedied and the remaining respondents answered this question. It was therefore impossible to determine the accurate response rate per NATA district due to the missing data on the 63 respondents.

Table 8.
Demographics of the Respondents of the JSS

Gender	N	%
Male	93	48.7
Female	98	51.3
Years Certified		
0-5	91	47.6
6-10	41	21.5
11-15	30	15.7
16+	28	14.7
Primary Employment Classification		
Clinical	138	72.3
Dual	53	27.7
NCAA Division		
I	106	55.5
II	37	19.4
III	48	25.1
NATA District		
1	6	3.1
2	6	3.1
3	96	50.3
4	3	1.6
5	6	3.1
6	7	3.7
7	6	3.1
8	4	2.1
9	5	2.6
10	8	4.2

Gender was divided evenly between females (n=98, 51.3%) and males (n=93, 48.7%). NCAA Division I (n=106, 55.5%) had the highest representation among divisions, and the largest number of respondents were from NATA District 3 (n= 96, 50.3%). The majority of the sample was comprised of newly certified ATs who were certified 0-5 years (n= 91, 47.6%). The most frequent job title was Assistant/Associate

Athletic Trainer (n=103, 53.9%) with the majority of respondents working in a clinical capacity (n=138, 72.3%) versus a dual appointment (n=53, 27.7%).

The Job Satisfaction Survey (JSS)

The JSS was completed by all 191 respondents and descriptive statistics for the eight subscales are provided in Table 9. Due to the uneven number of items included in each of the subscales, there is no way to determine the highest or lowest valued subscale. Descriptive statistics for each of the 36 items of the JSS were also calculated and are presented in Appendix D, Table 20.

Table 9.
Descriptive Statistics for the JSS Subscales.

	N	Mean	SD
Supervision	191	30.75	7.65
Pay & Rewards	191	20.19	7.18
Fringe Benefits	191	15.16	4.85
Promotion	191	11.46	3.81
Nature of Work	191	19.61	3.06
Coworkers	191	14.18	2.91
Operating Conditions	191	6.31	2.39
Communication	191	11.46	3.31

The Intention to Leave Survey (ITLS)

The ITLS was an original instrument consisting of seven items designed to assess not only a respondent's intent to leave, but how actively they have actually pursued these intentions. The ITLS was completed by all 191 respondents and descriptive statistics for each of the seven items as well as a total ITLS score is provided in the Table 10. The highest scored item was #5 which asked "what is the probability you will be working in the athletic training profession one year from today" with a mean score of 2.08 ± .92. The lowest mean score (1.36 ± .75) was item # 1, "within the past 6 months how often have you considered leaving the athletic training profession?"

Table 10.
Descriptive Statistics for the ITLS.

	ITLS Total	Item # 1	Item # 2	Item # 3	Item # 4	Item # 5	Item # 6	Item # 7
Mean	11.68	1.36	1.82	1.62	1.40	2.08	1.50	1.89
Std. Deviation	4.37	.75	.88	.91	.80	.92	.75	.91
Minimum	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Maximum	24.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00

Job Satisfaction

The first research question related to job satisfaction across NCAA division and primary job title. Separate factorial ANOVAs were completed for each of the eight JSS subscales with fixed factors of NCAA division and primary job title (Appendix D, Table 21). It should be noted that because each subscale addressed different questions, no adjustment to the experimental error rate was necessary. However, post hoc analyses to explore the source of significant ANOVA findings were appropriately adjusted by using

the Tukey HSD procedure. Significant differences in primary job title were found with *fringe benefits* f(2,182) = 7.82, p = .001 and *operating conditions* f(2,182) = 12.01, p< .05. Tukey's HSD post hoc analysis ($p \leq 0.05$) revealed GAs had significantly lower job satisfaction in the *fringe benefits* subscale. Mean differences in scores were seen with GAs and HATs (-4.63) and AATs (-4.73). Both GAs (-1.89) and AATs (-1.37) had higher mean job satisfaction than HATs in *operating conditions*.

Overall the results of the study did not support a difference in the various aspects of job satisfaction, as a function of divisional status or job title. The effect sizes of both the *fringe benefits* and *operating conditions* were .08 and .12 respectively. These are relatively small effect sizes.

The only significant interaction between NCAA division and job title was in the *nature of work* subscale f(2,182) = 2.52, p < .05. At the Division I level, HATs had higher a score than both AATs and GAs, however at the Division III level, GAs and AATs both had higher scores than HATs. In addition, HATs decreased their scores from Division I to Division II to Division III, whereas GAs decreased from Division I to Division II but then increased from Division II to Division III.

Although not in the original research question, separate one-way ANOVAs were conducted examining the subscales of job satisfaction and gender (Appendix D, Table 22), NATA District (Appendix D, Table 23), number of years certified (Appendix D, Table 24), and employment classification (Appendix D, Table 25). The only significant differences were found in *fringe benefits* f(3,186) = 3.52, p = .02 and *operating conditions* f(3,186) = 6.16, p = .00 relative to years certified and *operating conditions* f(1,189) = 4.87, p = .03 relative to employment classification. Tukey's HSD post hoc

analysis revealed respondents certified 0-5 years had significantly lower mean job satisfaction scores in *fringe benefits* than those certified 6-10 years (-2.76) and significantly higher scores than all other groups in regards to *operating conditions*.

Examination of *operating conditions* and employment classification revealed dual appointment respondents had lower scores in *operating conditions* than clinical appointments $f(1,189) = 4.87$, $p < .05$).

Intention to Leave

The second research question examined NCAA division and primary job title on the total intention to leave score. Division III (n=48, 25.1%) had the highest intent to leave score of 11.90 ± 4.03 (Table 11).

Table 11.
Descriptive Statistics of the ITLS Based on NCAA Division and Primary Job Title

Division	*Job Title*	*Mean*	*SD*	*n*
I	HAT	10.92	4.77	24
	AAT	12.18	5.03	62
	GA	11.00	3.48	20
	Total	11.67	4.71	106
II	HAT	11.81	3.90	16
	AAT	10.83	3.97	18
	GA	12.67	3.21	3
	Total	11.41	3.84	37

III	HAT	12.87	3.36	23
	AAT	10.52	3.99	23
	GA	16.5	7.78	2
	Total	11.90	4.03	48
Total	HAT	11.86	4.11	63
	AAT	11.57	4.66	103
	GA	11.64	3.93	25
	Total	11.68	4.37	191

Factorial ANOVAs (Table 12) showed no significant difference in total intention to leave based on NCAA division f (2, 191) = 1.27, p=0.28, primary job title f (2,191) = 1.33, p= .27, and no interaction f (4,191) = 2.05, p= .09 between NCAA division and job title.

Table 12.
Factorial ANOVA Model Summary of ITLS based on NCAA Division and Primary Job Title.

Source	*Sum of Squares*	*DF*	*Mean Square*	*F*	*Sig.*
Division	48.56	2	24.28	1.27	.28
Job Title	50.86	2	25.43	1.33	.27
Division * Job Title	156.44	4	39.11	2.05	.09
Error	3471.33	182	19.07		
Total	29672.00	191			

Although not in the original research question, separate (independent) one-way ANOVAs were conducted to examine potential differences in the total intention to leave scale (ITLS) scores with respect to the following independent variables: gender, NATA District, and years certified. None of these demographic factors demonstrated any significant differences in total intention to leave.

Job Satisfaction and Intention to Leave

The third research question was to determine the correlation between the various subscales of job satisfaction and the total intention to leave score. All eight subscales of the JSS demonstrated significant negative correlations with total intention to leave (Table 13).

Table 13.
Pearson Correlations of the Subscales of Job Satisfaction Survey and Total Intention to Leave.

Subscale	Correlation (r)	P-Value
Supervision	-.23	.001
Pay & Reward	-.43	.000
Fringe Benefits	-.23	.002
Promotion	-.41	.000
Nature of Work	-.45	.000
Coworkers	-.25	.000
Operating Conditions	-.21	.003
Communication	-.24	.001

The final research question sought to examine which subscales of the JSS were the main predictors of total intention to leave. Since all of the zero-order correlations between the JSS subscale scores and the ITLS score were significant, stepwise linear regression analysis was used to determine the aggregate relationship between the eight

subscales of the JSS and the total intention to leave score. The entry levels of p =0.49 and a removal level of p= 0.51 were preset. At this restriction level the subscales of *nature of work, pay & rewards,* and *promotion* provided the best model. Examination of R square change revealed a significant F value change for this model and suggested roughly 30% of the variance was explained by the subscale models (Table 14). Examination of standardize coefficient beta weights suggested *nature of work* was the best predicting subscale of total intention to leave (β= -.45) (Table 15.

Table 14.
Model Summary of the Step-Wise Linear Regression of the JSS Subscales and Total Intention to Leave Score.

Model	R Square Change	F Change	Sig. F Change
Model 1	.20	48.00	.00
Model 2	.08	21.33	.00
Model 3	.02	5.32	.02

Model 1: Nature of the Work
Model 2: Nature of the Work, Pay & Reward
Model 3: Nature of the Work, Pay & Reward, Promotion

Table 15.
Standard Coefficients of Step-Wise Multiple Regression of the JSS Subscales and ITLS.

Model		*B*	*Std. Error*	*Beta (β)*
1	Nature of Work	-.64	.09	-.45
2	Nature of Work	-.51	.09	-.36
	Pay & Rewards	-.35	.08	-.30
3	Nature of Work	-.46	.10	-.32
	Pay & Rewards	-.23	.09	-.20
	Promotion	-.11	.05	-.18

CHAPTER V

DISCUSSION

The attrition of ATs has become a forefront issue for the profession of athletic training. A decline in membership numbers and the potential loss of experienced clinicians provided the impetus for the current study. Although many factors may have been associated with these recent trends, it was speculated that the interactions of poor job satisfaction and high intentions to leave were major contributors. In particular, the current study examined multiple subscales of job satisfaction and their consequences on the athletic training profession.

The preliminary primary findings for the current study indicate NCAA division and primary job title do not affect the levels of job satisfaction or intention to leave the profession in athletic trainers. In addition, all subscales of job satisfaction have a significant negative correlation with intention to leave, and in particular the subscales of *pay & rewards, nature of work,* and *promotion* are particularly significant predictors of intention to leave.

This chapter will begin by discussing the characteristics of the respondents from this study. The second part of this chapter will examine job satisfaction, intention to leave, and the relationships between these variables and the chapter will conclude with a discussion of the limitations and generalizability of the study and directions for future research.

Demographics

Gender

The ATs who participated in this study were almost equally distributed by gender, males (48.7%) and females (51.3%). This is similar to the national distribution of all certified NATA members at 52% male, 48% female (NATA, 2006). The distribution was closer to the national norms than a similar study by Barrett et al. (2002) which reported a distribution of 57.9% male and 42.1% female, however, that sampling frame was a much more homogenous sample consisting of only ATs from the NCAA Southeastern Conference.

NATA District

The overwhelming majority of the sample was comprised of NATA district 3 (50.3%) with the second largest being district 10 (4.2%). This was to be expected based on the sampling method used. All eligible units in district 3 were solicited whereas only 60 individuals from each of the remaining nine districts were invited to participate. To achieve the 20% response rate per district that was similar to the overall response rate, 12 respondents per district were needed. None of the districts achieved this, as the highest response per district was district 10 at only 8 respondents.

It was encouraging that other districts, especially those located on the west coast, would have an interest in participating in the study. This suggested the study had some meaning on a nationwide level. Perhaps the concerns of job satisfaction are similar for all athletic trainers regardless of where one lives. In addition, attrition from the profession is not isolated to one district which is one potential reason the NATA is examining these

issues at a national level. However, given the extremely low number of respondents per district, such speculation is not very well substantiated.

NCAA Division

The largest percentage of respondents was from the NCAA Division I level. This would seem to be contrary to the national demographic where Division III has almost 100 more institutions than Division I (NCAA, 2007). However, Division I institutions are larger universities with typically more financial resources in order to hire and employ more athletic trainers and therefore may have had more eligible respondents.

When examining NATA district 3, where the majority of the sample came from, the demographics were also contrary to what one would expect in regards to Division II. There are more Division II institutions (n=56) than Division I (n=55) and Division III (n=38) in NATA district 3. However, the current study reported Division II with the lowest response rate (n = 37, 19.4%). It is unclear why the response rate was so poor amongst Division II institutions, but perhaps Division II institutions simply did not employ many athletic trainers.

Years Certified

The respondents in this study were largely comprised of ATs who had been certified 0-5 years (47.6%). This is similar to prior research where 40% of the respondents reported 2-5 years of experience (Barrett, Gillentine, Lamberth, & Daughtrey, 2002). There are several reasons for such a large percentage of newly certified respondents. The first reason may be due to the recent influx of new ATs to the membership. According to the NATA membership statistics, over 16,486 new members

have been added to the NATA between 2002 and 2006 (NATA, 2006). This has led to a collection of a large pool of young professionals who were eligible for the current study.

The second reason involves the propensity of younger respondents to complete a Web-based survey. A recent study demonstrated older respondents preferred to complete mail-based surveys and younger respondents, specifically 24 years or younger, preferred the Web-based design (Kaplowitz, Hadlock, & Levine, 2004). The Web-based design of the current research therefore may have been tailored more to the younger professional and this may have caused some response bias with the older ATs.

A third possible reason may have been a result of a culmination effect with the older ATs. Over the years these older ATs may have been solicited to participate in numerous studies and surveys. The accumulation of all these requests could have simply led some older ATs to ignore the solicitation and not complete the current survey.

Primary Job Title

The respondents in this study were classified as either a HAT (n=63, 33.0%), AAT (n=103, 53.9%), or GA (n = 25, 13.1%). These results were expected as most institutions employ a single head athletic trainer and multiple assistants.

An interesting result was the response rate of GAs as compared to the national average. According to the latest NATA statistics, 11% of the certified membership is listed as a student, most likely in a graduate assistantship position. Examination of the membership statistics for February 2008 showed 347 Certified Students in NATA district 3 (NATA, 2008). As mentioned previously, the majority of respondents for the current study were from district 3. With a response of only 25 out of 347 (7.2%) the current study was well below the 24% average response rate recent literature have suggested for

e-mail based survey research (Sheehan, 2001). This is also in contrast to a similar study in which GAs comprised the largest number of all respondents (Barrett, Gillentine, Lamberth, & Daughtrey, 2002).

Possible explanations for the poor response may be due to the nature of the position. Most assistantships are 1 to 2 year transitional positions to help socialize the new professional. Because of this, some GAs may not have updated their NATA membership profile until they found a more stable or longer term position. Without an updated e-mail address, there was simply no way the individual could have been solicited.

A second reason may be due to a limiting factor in the surveymonkey software which only allowed one response per Internet Protocol (IP) address. GAs who may not have had their own office or computer, would not have been allowed to submit multiple responses. This reason however probably was not a major influence based on the availability of personal computers, university computer labs, etc.

Employment Classification

In terms of employment classification, the results of the study are inconsistent with the national averages. The national membership is divided into the three categories of faculty/academic/research, professional staff/athletics/ clinic, and split appointments. These categories are represented in the current study by the employment classifications of academic, clinical, and dual appointment. The majority of the respondents in this study were classified as clinical (n=138, 72.3%), which is higher but still consistent with the national average of 66% (NATA, 2008). However, the 27.7% of the respondents in the

study classified as dual appointment (n=53) was higher than the national average of 14% (NATA, 2008).

A possible reason for this discrepancy was the lack of a solid definition of the employment classifications especially with dual appointments. Different respondents may have had different notions on the ratio of job responsibilities between academic and clinical. A respondent who had a 90:10 ratio clinical:academic might not have considered themselves in a dual appointment, where another respondent with a similar breakdown would have. A more solid and specific definition of the classification might have helped respondents in making their choices.

Job Satisfaction

Job satisfaction was defined in this study as the degree to which an individual likes their job and consists of an affective component which comprises an individual's feeling of satisfaction regarding their job and a perceptual component which evaluates whether one's job is meeting one's needs. Job satisfaction was measured using a survey instrument and comparisons of job satisfaction based on various demographics were performed.

The Job Satisfaction Survey (JSS) was developed by Spector (1985) and was a 36-item survey designed to be applied to various human service organizations. In fact the JSS had been used to measure job satisfaction with employees in nursing homes, mental health centers, and public health departments (Spector, 1985). The JSS had developed nine subscales and one total score which were designed to assess various aspects of job satisfaction. The results of the current study however did not provide evidence for nine separate subscales or for one total score. The exploratory nature of the study allowed the

survey items to be grouped into only eight subscales, some of which were different than the original specification by Spector.

Visual inspection of the PCA loadings or weights was needed to logically interpret the statistical grouping of the items. The logical interpretation of the eight new subscales was loosely based on the original nine subscales. Interestingly, the original subscales of *fringe benefits, promotion,* and *nature of work*, were exactly the same as the PCA. One major change saw the combination of the original subscales of *pay* and *contingent rewards* to form one new subscale: *pay & rewards.* The same labels were used with the exception of the new subscale of *pay & rewards.*

Comparing the statistical analysis of Spector's versus the PCA's subscales showed similar results with significance only found in the *fringe benefits* and *operating conditions* for primary job title, and the only interaction with *nature of work*. These results suggest the PCA is a valid as Spector's original subscales and lends support for using the PCA in the current study.

Spector (1985) also calculated a total job satisfaction score which was a combined total of the 36 items. The PCA results from this study did appear to justify the creation nor interpretation of a total job satisfaction score scale, but instead suggested eight separate scores each examining and measuring a specific aspect or characteristic of job satisfaction.

Job Satisfaction in Athletic Training

Job satisfaction has been studied in various health fields including nursing (Coomber & Barriball, 2006; Fochsen, Sjögren, Josephson, & Lagerström, 2005; Gardulf et al., 2005; Irvine & Evans, 1995; Lambert, 2001; Lussier, 2006), occupational therapy

(Bailey, 1990a, , 1990b; Burnett-Beaulieu, 1982; Salvatori, Williams, Polatajko, & MacKinnon, 1992), and physical therapy (Harkson, Unterreiner, & Shepard, 1982; Ries, 2004). A review of the literature has suggested job satisfaction in athletic training is affected by demographics such as gender (WATC, 1996b) and various subscales of job satisfaction such as pay. (Barrett, Gillentine, Lamberth, & Daughtrey, 2002; Campbell, Miller, & Robinson, 1985) The current study examined how certain demographics such as college division, job title, gender, or employment classification affected the various subscales of job satisfaction.

College/University (NCAA) Division

Research on job satisfaction in athletic training has focused mainly on athletic trainers in the college or university setting (Barrett, Gillentine, Lamberth, & Daughtrey, 2002; Herrera & Lim, 2003; Pitney, 2006; Pitney, Ilsley, & Rintala, 2002a). Prior research has shown Division I HATs have higher levels of organizational commitment than Division III HATs (Winterstein, 1998) and organizational commitment has a direct positive relationship with job satisfaction (Blau, 2003). Therefore, if Division I ATs had a higher commitment, they should also have had higher job satisfaction. No published research has examined how NCAA division affects job satisfaction in athletic trainers, however there is some literature which has examined division and satisfaction in coaching, and has demonstrated Division I coaches had significantly higher job satisfaction scores than Division III (Jordan, Mullane, & Gillentine, 2004).

Based upon this previous research, it was expected that Division I ATs would have the highest job satisfaction of the three divisions. The current study only found differences in job satisfaction based on NCAA division and in the *nature of work*

subscale. A potential reason for the lack of significance in the other subscales may have been that the responsibilities of being an athletic trainer were similar regardless of which NCAA division subjects were employed. Research has shown interesting work environments (Wall & Martin, 1987) and skill variety (Hackman & Oldham, 1976) led to increased job satisfaction. Due to their uniqueness, each NCAA division can provide an interesting and stimulating work environment with a variety of skills for an athletic trainer. This may suggest that as long as the job is interesting to the athletic trainer, it is irrelevant at what division they are working in.

The significance of these findings is although NCAA division did not significantly affect the various subscales of job satisfaction, it did provide suggestions for areas of improvement for each division. Although effect sizes were low, the results did suggest certain divisions had lower scores in certain subscales. For instance, Division III had lower scores in *promotion* suggesting this may be an area where Division III ATs have the potential to suffer lower levels of job satisfaction. Implementing strategies to address this issue may help to increase the satisfaction of ATs at this level. For instance, in Pennsylvania, clinical ATs employed in the Association of Pennsylvania State College & University Faculties (APSCUF) union are now being considered faculty at their respective institutions (M. Heinerichs, personal communication, March 21, 2008). In fact the Commonwealth Court of Pennsylvania has ruled that non-faculty athletic trainers' functions, duties, and relevant characteristics are not substantially different from faculty athletic trainers and thus non-faculty athletic trainers must be included in the collective bargaining agreement (Smith-Ribner, 2003). This has allowed ATs to receive similar salaries and benefits as other academic oriented faculty members and even has allowed

clinical ATs to proceed with promotion and tenure appointments. At the Division III level, this may be even easier to accomplish as many ATs are in a split appointment. Moving these ATs from intercollegiate athletics into an academic department and classifying them as faculty may help to improve their chances for promotion.

Primary Job Title

Prior research has shown low pay (Irvine & Evans, 1995), increased job stress (Cooper & Cartwright, 1994), high role ambiguity (Hardy & Hardy, 1988), and overwhelming organizational constraints (Peters, O'Connor, & Rudolf, 1980) all lead to decreased job satisfaction. These factors are also all characteristics which may be used to describe the typical athletic training GA.

The results of this study did not fully support this notion. A possible explanation for this may have been the low number of GAs in the study (n=25) as compared to the other job titles. In addition, out of the 25 GAs, twenty were employed at the Division I level. This could have made the respondents fairly homogenous and thus may not have provided an accurate depiction of GAs, especially those at the Division II and III levels.

Only the subscale of *fringe benefits* showed GAs to be significantly lower. This was expected as most graduate assistantships do not offer benefits. The remaining seven subscales however showed no significant differences, which was contrary to the literature. Previous research has demonstrated younger professionals have higher levels of feeling overwhelmed which may lead to decreased job satisfaction (Pitney, Ilsley, & Rintala, 2002b). In addition, younger employees need to acclimate to their work environment and may need extra preparation time to perform their various job responsibilities (Peters, O'Connor, & Rudolf, 1980).

With all these factors present, it was surprising that GAs did not have lower job satisfaction. In particular, it was surprising that there was not a significant difference in *pay & rewards*. Prior research has shown athletic training GAs experience more economic difficulties than full-time ATs (Barrett, Gillentine, Lamberth, & Daughtrey, 2002) and financial concerns is a major factor in job satisfaction.

One possible reason for this was the respondent's determination of fair pay being based on their job title. A GA would not expect to be paid $30,000, and therefore they might be satisfied with a $10,000 stipend amount because they may have felt that was reasonable for an assistantship. This could have led GAs to answer the survey according to a pre-conceived notion of pay fairness as opposed to what they might have actually been feeling.

Although the original research question focused on which job title had the lowest job satisfaction, it was also assumed HATs would have the highest job satisfaction in each subscale based on the respect and authority offered by the position (Capel, 1990; Herrera & Lim, 2003). In the current study, no significant differences were noted in any of the subscales except *operating conditions* which revealed HAT had the lowest satisfaction score in this area. The subscale of *operating conditions* examined the amount of general work and paperwork an individual must complete. This is consistent with prior research which has demonstrated increased paperwork and patient workloads as factors leading to increased job stress in physical therapists (Pearl, 1990; Ries, 2004). In terms of athletic training, typically the HAT has the most job responsibilities and will therefore likely have the most paperwork and general amount of work to perform.

Overall the results of the study did not support a difference in the various aspects of job satisfaction, division, or job title. Even though there were a few statistically significant differences, the extremely low effect sizes suggested the differences were not very meaningful. This is consistent with prior research which showed no difference in job satisfaction between HAT, AAT, or GA (Barrett, Gillentine, Lamberth, & Daughtrey, 2002). In regards to HATs and *operating conditions*, this subscale contained only two items and therefore may not have completely explained all the aspects associated with operating conditions.

The results of this study suggested job satisfaction was not a simple construct but instead a much more complex one comprised of multiple subscales. Although no differences were found between job title and NCAA division, the results did suggest job satisfaction had some variation based on these demographics. In addition, possible preconceived notions of the certain levels of competition or job titles providing more satisfying work environments did not seem to be accurate.

Intention to Leave

College/University (NCAA) Level

The results of the study did not support any differences in intention to leave by NCAA Division. It was speculated Division II would have a higher intention to leave because of its status as an in-between division. Although Division II may not have the same amount of pressure to succeed athletically as Division I, it does provide scholarships, financial aid and other incentives which makes it more pressure filled than the Division III level. The results did not support such a notion as visual inspection

actually placed Division II ATs with the lowest intention to leave.

A possible reason for the results could have been due to the fact there was simply not an overwhelming difference in job satisfaction between divisions, therefore there should not have been a difference in intention to leave. The reason Division II produced the lowest score could have also been due to the notion Division II has some of the extrinsic benefits of Division I such as facilities and resources, without as much pressure to win and succeed as Division I .

Primary Job Title

For the current study, it was thought certain demographics would predict higher intentions to leave. No prior research has examined intention to leave in athletic training therefore it was assumed intention to leave would have similar characteristics or trends as job satisfaction.

The typical GA is a younger professional (Barrett, Gillentine, Lamberth, & Daughtrey, 2002). Recent research has suggested the new generation of medical professionals is now more willing than ever to leave a job within the first few years if it does not meet their immediate goals (Aiken et al., 2001) Additional research has suggested younger employees, especially those with less than ten years of experience, have significantly higher intentions to leave (Hellman, 1997).

The results of the current study however are contrary to this literature, and in fact seem to be more consistent with research that has suggested the typical GA is eager to start their career and is willing to suffer through some setbacks in their first few years (Barrett, Gillentine, Lamberth, & Daughtrey, 2002).

Possible explanations for why there was not a significant difference include the

results from the JSS which suggested GAs in this study were just as satisfied with their jobs as HATs or AATs. Therefore, there would be no reason to assume their intention to leave would be greater when their job satisfaction was not lower.

A second reason may have been pre-conceived notions of the job duties and responsibilities of a GA. Entering into their assistantships GAs probably understood or partially accepted their position and realized this was not the "normal" work environment and therefore were willing to stay in the profession long enough to see what the profession was really about without the added burdens and responsibilities of being a student. Additionally, their preconceived ideas of the typical assistantship may have overshadowed their actual experiences.

Job Satisfaction and Intention to Leave

This study attempted to identify aspects of job satisfaction that predicted overall intention to leave the profession of athletic training. It has been well established in the literature that job satisfaction has a direct influence of intention to leave (Coomber & Barriball, 2006; Hasselhorn, Tackenberg, M□ller, & Group, 2005; Mobley, Horner, & Hollingsworth, 1978). Unfortunately no study has examined the effects of job satisfaction and intention to leave in athletic training. Pilot data had suggested certain subscales of job satisfaction would be significant indicators of intention to leave. The original subscales of *promotion* and *coworkers* as proposed by Spector (1985) had the strongest correlations with overall intention to leave based on pilot data. Although these original subscales were modified it was still assumed similar subscales would be the best predictors of intention to leave. The results of the study partially supported this claim.

Irvine and Evans (1995) developed a model in the nursing profession which suggested there are three main factors of job satisfaction which affected intention to leave: economic, structural, and psychological. In the current study, the subscales of *nature of work, pay & rewards,* and *promotion* were the best predictors of intention to leave. These subscales were consistent with the Irvine and Evans (1995) model where *pay & rewards* and *promotion* could be categorized as "economic" and *nature of work* as "structural". This suggested there were similar factors which affected various health professions and understanding the impact of these factors may provide solutions for athletic training.

The subscale of *pay & rewards* was a major predictor of intention to leave and the literature supports this. In the nursing profession, salary has been a major influence on intention to leave. Examination of Swedish nurses found salary as the number one reason for wanting to quit their jobs (Fochsen, Sjögren, Josephson, & Lagerström, 2005; Gardulf et al., 2005), and salary was a top three reason for American nurses (Huey & Hartley, 1988). In addition, pay and salary have been well established as major indicators of job satisfaction and thus indirectly affected intention to leave (Barrett, Gillentine, Lamberth, & Daughtrey, 2002; Campbell, Miller, & Robinson, 1985). The subscale of *promotion* could have been considered a form of professional recognition and prior research has demonstrated a indirect relationship with intention to leave and recognition (McChesney & Peterson, 2005).

Although the results seemed to be consistent with the literature, it was still unclear what aspects of *pay & rewards* or *promotion* influenced intention to leave. Prior research has suggested fairness in pay and fairness in promotion are more important to

employees than the actual pay level or promotion level (Rice, Philips, & McFarlin, 1990). This could have been especially true where respondents to the current study were basing their answers on their perception of pay fairness as compared to other professions. Physical therapy may be considered the most similar profession to athletic training and comparisons of normal salaries showed PTs earn a significantly higher mean salary (Goldstein, 2001; NATA, 2005). More in-depth examination will be needed to truly determine if pay and promotion level rather than pay and promotion perception are the main factors in intention to leave.

Possible solutions to decreasing intention to leave therefore should address the subscales which most significantly predict it. Increasing pay and rewards is a current topic in athletic training and has been receiving more support from various institutions. ATs at Rutgers University for example get paid overtime for their athletic training services (Hill, 2002). Being compensated for working 60 hour weeks may provide enough job satisfaction to keep an AT in the profession longer. In addition, programs such as flexible scheduling and pregnancy leave are ways to positively reward ATs for their hard work and retain them in the field (Sabiston & Summers, 2004).

A final solution to lowering intention to leave is to continue to promote the profession of athletic training in a positive manner. The professional recognition of athletic training not only amongst other allied health fields, but also with the public is crucial for lowering intention to leave. The continued efforts of the NATA to legislate for ATs on such issues as the right to fair practice provides professional credibility and respect to not only the AT as an individual, but to the profession as a whole. Continued

efforts both at the national and grass root levels should be supported by ATs regardless of work setting or job title.

Generalizability

The results of the JSS and ITLS can be generalized to ATs working in the college or university setting. Although a national sample was used, the low response rate from nine of the ten NATA Districts makes it difficult to generalize the results to these districts. The 50% response rate of NATA District 3 respondents makes the results extremely applicable to this district. However, there is no reason to believe the results would not have been similar to all NATA districts. In addition, the reliability analysis seemed adequate for all of the JSS subscales and the ITLS, with the exception of *operating conditions*. Because the current study examined different subscales than the original instrument proposed, it is impossible to compare all the subscale reliabilities between studies. However, the subscales of *fringe benefits, promotion,* and *nature of work* were the same for both.

Limitations of the Study

The current study had several limitations. A primary limitation was response bias. The design of the survey did not allow for tracking of non-respondents. It was therefore impossible to determine if the demographics, JSS scores, and ITLS scores of the respondents were similar to the non-respondents. In addition, no effort was made to control for the number of responses per institution, especially in NATA district 3 where all eligible units were solicited. This allowed for the possibility of institutional or organizational characteristics to overshadow the job satisfaction and intention to leave at the occupational or professional level. This may have a particular concern with the ITLS

where respondents may have based their answers more on their reactions to the institution as opposed to the profession.

A second limitation was the response rate. The response rate of 20% was lower the expected, however it was consistent with the recent trend of declining response rates in survey research (Dey, 1997; Sheehan, 2001). Possible reasons for the decline in survey responses are survey length and issue relevance (Sheehan, 2001). The current study was designed to be short and easy to complete. Pilot data suggested a maximum completion time of 10 minutes. In addition, the recent discussion of attrition of athletic trainers at the national level hopefully made the study relevant and salient to the possible respondents. However, various factors may have outweighed these attempts at ensuring a higher response rate. A major reason may have been the lack of control in the distribution of the e-mail solicitation. The principle investigator did not send out the solicitation and had no access to the list of e-mails addresses that were solicited. Because of this, multiple respondents were ineligible due to not meeting the inclusion criteria. Future studies should certainly take measures to ensure the target sample meets the inclusion criteria (such as being employed in a college or university) prior to solicitation.

A second reason for the poor response rate was the use of only one follow-up solicitation. Research has clearly demonstrated the more solicitation attempts conducted, the higher response rate (Groves et al., 2004). The NATA distribution service only allowed one follow-up and without access to the sampling list, it was impossible to conduct a manual solicitation. In terms of data collection period, it has been shown surveys conducted in as short as 10 days can achieve almost 100% contact rates, (Groves

et al., 2004) therefore the three week collection period seemed to be an adequate time frame

Suggestions for Future Research

The current study was designed to determine how job satisfaction and intention to leave is affected by various demographics. Based on the results of this study no conclusive differences of job satisfaction or intention to leave can be made based on various athletic training demographics.

Future research examining job satisfaction should develop a consistent and comprehensive definition for various primary job titles. The current study was limited due to the large variety of job titles which led to filtering of some responses. Perhaps a more detailed or refined sample could provide more meaningful results on various job titles.

Secondly, we should continue to examine job satisfaction differences in the NCAA divisions. The results from the current study seem to suggest that as long as a work environment is stimulating and interesting, job satisfaction will not be affected. Further research should be conducted to determine what aspects of each NCAA division makes them interesting and stimulating for athletic trainers.

Finally, the job satisfaction subscale of *operating conditions* showed HATs as having significantly lower scores, however it consisted of only two items. A better defined construct with more items may be needed in future research to determine exactly how meaningful these results actually were.

Based on the results regarding intention to leave, the major question which still remains is the affect of age. The literature is inconsistent on intention to leave in regards

to the younger professional. Whereas the younger professional is eager to leave if a profession is not fulfilling (Aiken et al., 2001), they are also resilient and willing to suffer some hardships before deciding to leave (Hellman, 1997). Future research needs to be directed at different age groups and populations to determine which groups have the highest intentions to leave and why. Studies should attempt to develop more in-depth analysis of intentions to leave through the use of interviews with individuals who have demonstrated high intentions to leave. Such data could provide great insight into what makes an athletic trainer wish to leave the profession. Such research may also help to illustrate the differences between occupational intention to leave and organizational intention to leave. Understanding how much an individual wishes to leave the profession versus their current employment setting may help to provide solutions for keeping athletic trainers within the profession.

Finally, developing a survey which can be distributed to athletic trainers who have left the profession may help to validate the ITLS. The ITLS is an original instrument and is intended to project and individual's attitudes and feelings towards an outcome they have not accomplished. Surveying individuals who has taken the ITLS and have actually left the profession will help to validate if the items of the ITLS are measuring the same items which caused the individual to leave. This will provide even more data on what factors influence an athletic trainer's desire to leave the profession.

Conclusions

This study explored job satisfaction and intention to leave the profession of athletic training in clinically oriented ATs employed in various NCAA institutions. The findings of this study indicate NCAA division and job title do not affect the levels of job

satisfaction or intention to leave. Although NCAA Division I may be considered the highest level of athletic training in collegiate athletics, the data does not suggest these athletic trainers have any higher job satisfaction. In addition, graduate assistants do not seem to be suffering from lower job satisfaction than full-time athletic trainers such as head or assistants. On the contrary, the results suggest head athletic trainers are being overworked and having lower satisfaction in this area.

Athletic trainers seem to feel variables such as pay and rewards are the most important factors in their job satisfaction and in their intention to leave the profession. Eight subscales of job satisfaction all significantly influence their intention to leave and should all be considered when determining the likelihood of an individual staying in the profession. As retention and attrition of athletic trainers continues to become an issue at the national level, it will be important to understand the many variables and aspects which affect an athletic trainer's satisfaction with the profession.

REFERENCES

Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J. A., Busse, R., Clarke, H., et al. (2001). Nurses' reports on hospital care in five countries. *Health Affairs, 20*(3), 43-53.

ANA. (2005). President's FY 2006 budget cuts $1 million from nurse workforce development programs. *The New Mexico Nurse, 50*(2), 12.

ANA. (2006). Who we are: Frequently asked questions. Retrieved 10/10/2006, from http://www.nursingworld.org/about/faq.htm#def

Bailey, D. M. (1990a). Reasons for attrition from occupational therapy. *The American Journal of Occupational Therapy, 44*(1), 23-29.

Bailey, D. M. (1990b). Ways to retain or reactivate occupational therapists. *The American Journal of Occupational Therapy, 44*(1), 31-37.

Barrett, J. J., Gillentine, A., Lamberth, J., & Daughtrey, C. L. (2002). Job satisfaction of NATABOC Certified Athletic Trainers ar Division One National COllegiate Athletic Association institutions in the Southeastern Conference. *International Sports Journal, 6*(2), 1-13.

Bedeian, A. G., & Armenakis, A. (1981). A path-analytic study of the consequences of role conflict and ambiguity. *Academy of Management Journal, 24*, 417-424.

Biers, L., & Murphy, J. F. (1970). A descriptive study of educational needs and career blockages. *American Journal of Occupational Therapy, 24*, 196-200.

Blau, G. (2003). Testing for a four-dimensional structure of occupational commitment. *Journal of Occupational and Organizational Psychology, 76*(4), 469-488.

Bluedorn, A. (1982). The theories of turnover: Causes, effects, and meaning. In S. Bacharach (Ed.), *Research in the sociology of organizations* (pp. 75-128). Greenwich, CT: JAI Press.

Burnett-Beaulieu, S. (1982). Occupational therapy profession dropouts: Escape from the grief process. *Occupational Therapy in Mental Health, 2*(2), 45-55.

Campbell, D., Miller, M. H., & Robinson, W. W. (1985). The prevalence of burnout among athletic trainers. *Athletic Training, 20*(2), 110-113.

Campion, M., & McClelland, C. (1991). Interdisciplinary examination of the costs and benefits of enlarhed jobs: A job design quasi-experiment. *Journal of Applied Psychology, 76*, 186-198.

Capel, S. A. (1986). Psychologist and organizational factors related to burnout in athletic trainers. *Research Quarterly for Exercise and Sport, 57*(4), 321-328.

Capel, S. A. (1990). Attrition of athletic trainers. *Athletic Training, 25*(1), 34-39.

Carmeli, A., & Weisberg, J. (2006). Exploring turnover intentions among three professional groups of employees. *Human Resource Development Internaitonal, 9*(2), 191-206.

Carr, J. C., Pearson, A. W., Vest, M. J., & Boyar, S. L. (2006). Prior occupational experience, anticipatory socialization, and employee retention. *Journal of Management, 32*(3), 343-359.

Cavanagh, S. (1989). Nursing turnover: Literature review and methodological critque. *Journal of Advanced Nursing, 14*, 587-596.

Cavanagh, S. (1992). Job satisfaction of nursing staff working in hospitals. *Journal of Advanced Nursing, 17*, 704-711.

Chelladurai, P., & Ogasawara, E. (2003). Satisfaction and commitment of American and Japanese collegiate coaches. *Journal of Sports Management, 17*(1).

Coomber, B., & Barriball, K. L. (2006). Impact of job satisfaction components on intent to leave and turnover for hospital based nurses: A review of the research literature, *International Journal of Nursing Studies*.

Cooper, C. L., & Cartwright, S. (1994). Healthy mind; health organization: A proactive approach to occupational stress. *Human Relations, 47*, 455-471.

Cowin, L., & Hengstberger-SIms, C. (2006). New graduate nurse self-concept and retention: A longitudinal study. *International Journal of Nursing Studies, 43*, 59-70.

Cranny, C., Smith, P., & Stone, E. (1992). *Job satisfaction: How people feel about their jobs and how it affects their performance*. New York: Lexington.

Dey, E. (1997). Working with low survey reponse rates: The efficacy of weighting adjustments. *Research in Higher Education, 38*(2), 215-227.

Dolan, M. G. (1998). Managing stress and burnout in athletic therapy. *Athletic Therapy Today, 3*(3), 23.

Dunteman, G. H. (1989). *Principal Components Analysis*. Thousand Oaks, CA: Sage

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research.* Reading, MA: Addison-Wesley.

Fochsen, G., Sjögren, K., Josephson, M., & Lagerström, M. (2005). Factors contributing to the decision to leave nursing care: A study among Swedish nursing personnel. *Journal of Nursing Management, 13*, 338-344.

Frayne, T. (1992). The ultimate goal: The almighty buck. *Maclean's, 105*(6), 65.

Gardulf, A., Söderström, I.-L., Orton, M.-L., Eriksson, L. E., Arnetz, B., & Nordström, G. (2005). Why do nurses at a university hospital want to quit their jobs? *Journal of Nursing Management, 13*, 329-337.

Gauci-Borda, R., & Norman, L. (1997). Factors influencing turnover and absence of nurses: A research review. *International Journal of Nursing Studies, 34*(6), 385-394.

Gay, L., & Airasian, P. (2000). *Educational research: Competencies for analysis and application* (6th ed.). Upper Saddle River, NJ: Merrill.

Gieck, J. (1984). Stress management and the athletic trainer. *Athletic Training, 19*(2), 115-119.

Gieck, J., Brown, R. S., & Shank, R. H. (1982). The burnout syndrome among athletic trainers. *Athletic Training, 17*(1), 36-40.

Gieck, J., Lephart, S., & Saliba, E. (1986). NATA certification: A 5 & 10 year follow-up. *Athletic Training, 21*(2), 120-121, 163.

Goldstein, M. (2001). Physical therapist salaries show improvement. *PT Magazine, December*, 32-33.

Groves, R. M., Jr., F. J. F., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangean, R. (2004). *Survey methodology*. Hoboken, NJ: John Wiley & Sons, Inc. .

Hackman, J., & Oldham, G. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance, 16*, 250-279.

Hardy, M., & Hardy, W. (1988). Role stress and role strain. In M. E. Hardy & M. E. Conway (Eds.), *Role theory: Perspectives for health professionals* (2nd ed.). Norwalk, CT: Appleton & Lange.

Harkson, D. G., Unterreiner, A. S., & Shepard, K. F. (1982). Factors related to job turnover in physical therapy. *Physical Therapy, 62*(10), 1465-1470.

Hasselhorn, H.-M., Tackenberg, P., M□ller, B. H., & Group, N.-S. (2005). *Intent to leave nursing in the European nursing profession*. from http://www.next.uni-wuppertal.de/.

Hellman, C. (1997). Job satisfaction and intent to leave. *Journal of Social Psychology, 137*, 677-689.

Hendrix, A. E., Acevedo, E. O., & Herbert, E. (2000). An examination of stress and burnout in Certified Athletic Trainers at Division 1-A universities. *Journal of Athletic Training, 35*(2), 139-144.

Herrera, R., & Lim, J. Y. (2003). Job satisfaction among athletic trainers in NCAA division 1aa institutions [Electronic Version]. *Sport Journal*, 6. Retrieved 2/17/07 from http://www.thesportjournal.org/2003Journal/Vol6-No1/satisfaction.asp.

Herrick, J., Takagi, C. Y., Coleman, R., & Morgan, L. J. (1983). Social workers who left the profession: An exploratory study. *Journal of Sociology and Social Welfare, 10*, 78-94.

Hill, D. (2002). The ABCs of OT. *Athletic Management, Feb/Mar*, 45-51.

Hiller, D. V., & Philliber, W. W. (1980). Necessity, compatibility and status attainment as factors in the labor-force participation of married women. *Journal of Marriage and the Family, 42*(2), 347-354.

Huey, F. L., & Hartley, S. (1988). What keeps nurses in nursing? 3,500 nurses tell their stories. *American Journal of Nursing, 88*, 181-188.

Irvine, D. M., & Evans, M. G. (1995). Job satisfaction and turnover among nurses: Integrating research findings across studies. *Nursing Research, 44*(4), 246-253.

Janis, I. (1972). *Victims of group think.* Boston: Houghton Mifflin.

Jordan, J., Mullane, S., & Gillentine, A. (2004). *Job satisfaction in sport organizations: An examination of NCAA division I and III basketball coaches.* Paper presented at the 2004 AAHPERD National Convention and Exposition New Orleans, LA.

Kaplowitz, M., Hadlock, T., & Levine, R. (2004). A comparison of web and mail survey response rates. *Public Opinion Quarterly, 68*(1), 94-101.

Kemery, E., & Mossholder, K. (1987). Role stress, physical symptomatology, and turnover intentions: A casual analysis of three alternative specificattions. *JOurnal of Occupational Behaviour, 8*, 11-23.

Klenke-Hamel, K. E., & Mathieu, J. E. (1990). Role strains, tension, and job satisfaction influences on employess' propensity to leave: A multi-sample replication and extension. *Human Relations, 43*(8), 791-807.

Laff, M. (2007). The myth of multitasking. *T & D, 61*(3), 20.

Lambert, V. A. (2001). Literature review of role stress/strain on nurses: An international perspective. *Nursing and Health Sciences, 3*, 161-172.

Lee, K., Carswell, J., & Allen, N. (2000). A meta-analytic review of occupational commitment: Relations with person- and work-related variables. *Journal of Applied Psychology, 85*(5), 799-811.

Lev-Ram, M. (2006). How to make your workspace *work* better. *Business 2.0, 7*(10), 58-60.

Lewis, S., & Cooper, C. L. (1987). Stress in two-earner couples and stage in the life-cycle. *Journal of Occupational Psychology, 60*, 289-303.

Lockard, C. B. (2005). Athletic trainers: Providing healthcare for athletes of all kinds. *Occupational Outlook Quarterly*(Spring), 38-41.

Lussier, K. G. (2006). Taming burnout's flame. *Nursing Management*, 14.

Martin, K. (2005). Anticipating the future. *2004-05 NCAA Division II Membership Report*.

Mayhew. (2005). Ergonomics inthe workspace: Aligning workstations, workers, and work. *Canadian Manager, 30*(3), 16-17.

Mazerolle, S. M., & Bruening, J. E. (2006). Sources of work-family conflict among Certified Athletic Trainers, part 1. *Athletic Therapy Today, 11*(5), 33-35.

Mazerolle, S. M., Bruening, J. E., Casa, D. J., Burton, L., & Heest, J. V. (2006). *The impact of work-family conflict on job satisfaction and life satisfaction in Division*

1-A athletic trainers. Paper presented at the NATA Annual Meeting and Clinical Symposia, Atlanta, GA.

McChesney, J. C., & Peterson, M. (2005). There is no off-season anymore. *Athletic Therapy Today, 10*(6), 6-10.

McKeena, E. (2000). *Business psychology and organizational behavior: A student's handbook* (3rd ed.). Philadelphia: Psychology Press.

McLaine, A. J. (2005). An overview of burnout in athletic trainers. *Athletic Therapy Today, 10*(6), 11-13.

Mensch, J., & Wham, G. (2005). It's a quality-of-life issue. *Athletic Therapy Today, 10*(1), 34-35.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organization commitment. *Human Resource Management Review, 1*(1), 61-89.

Meyer, J. P., Allen, N. J., & Smith, C. (1993). Commitment to the organization and occupation: Extension and test of a three-component conceptualization. *Journal of Applied Psychology, 76*(4), 538-551.

Michaels, C., & Spector, P. (1982). Causes of employee turnover: A test of the Mobley, Griffeth, Hand, and Meglino model. *Journal of Applied Psychology, 67*(1), 53-59.

Mobley, W. H., Horner, S. O., & Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. *Journal of Applied Psychology, 63*(4), 408-414.

Moss, C. (1994). 1992 entry-level athletic trainer salaries. *Journal of Athletic Training, 29*(3), 205-207.

Moss, C. (1996). 1994 entry-level athletic training salaries. *Journal of Athletic Training, 31*(1), 25-28.

Nahm, H. (1940). Job satisfaction in nursing. *American Journal of Nursing, 40*, 1389-1392.

NATA. (2005, July). New salary survey shows increased pay in most settings. *NATA News,* 22-23.

NATA. (2006). Membership statistics. Retrieved 10/10/06, from http://www.nata.org/membership/stats.htm

NATA. (2008). 2008 NATA certified membership by setting and district. Retrieved 4/25/08, from http://www.nata.org/members1/documents/membstats/2008_02.htm

NATA Board of Directors. (2007). Summary of Minutes. Retrieved 10/31/07, 2007, from http://www.nata.org/members1/documents/BOD_minutes/0607.pdf

NCAA. (2007). Membership. Retrieved 8/1/07, from http://www.ncaa.org/wps/portal/!ut/p/kcxml/04_Sj9SPykssy0xPLMnMz0vM0Y_QjzKLN4j3CQXJgFjGpvqRqCKOcAFfj_zcVH1v_QD9gtzQiHJHRUUAc0tpTA!!/delta/base64xml/L3dJdyEvUUd3QndNQSEvNElVRS82XzBfTFU!?CONTENT_URL=http://www2.ncaa.org/portal/about_ncaa/membership/

Nogueras, D. J. (2006). Occupational commitment, education, and experience as a predictor of intent to leave the nursing profession. *Nursing Economics, 24*(2), 86-93.

Nunnally, J. (1978). *Psychometric Theory*. New York: McGraw-Hill.

Pastore, D. (1993). Job satisfaction and female college coaches. *Physical Educator, 50*(4), 216-221.

Pearl, M. J. (1990). Factors physical therapists use to make career decisions. *v70*(n2), p105(103).

Perez, P., Cleary, M., & Hibbler, D. (2002). *Women in athletic training: Striving for equity.* Paper presented at the Florida International University College of Education Annual Research Conference Proceedings, Miami, FL.

Perez, P. S., Hibbler, D. K., Cleary, M. A., & Eberman, L. E. (2006). Gender equity in athletic training. *Athletic Therapy Today, 11*(2), 66-69.

Peters, L., O'Connor, E., & Rudolf, C. (1980). Situational constraints and work outcomes: The influences of a frequently overlooked construct. *Academy of Management Review, 5*, 391-397.

Pfeffer, J. (1976). Beyond management and the worker: The institutional function of management. *Academy of Management Review, 1*(2), 36-46.

Pitney, W. (2002). The professional socialization of Certified Athletic Trainers in high school settings: A grounded theory investigation. *Journal of Athletic Training, 37*(3), 286-292.

Pitney, W. (2006). Organizational influences and quality-of-life issues during the professional socialization of Certified Athletic Trainers working in the National Collegiate Athletic Association division I setting. *Journal of Athletic Training, 41*(2), 189-195.

Pitney, W., Ilsley, P., & Rintala, J. (2002a). The professional socialization of Certified Athletic Trainers in the National Collegiate Athletic Association Division I context. *Journal of Athletic Training, 37*(1), 63-70.

Pitney, W., Ilsley, P., & Rintala, J. (2002b). The professional socialization of Certified Athletic Trainers in the National Collegiate Athletic Association Division I context. *Journal of Athletic Training, 37*(1), 63-70.

Reed, S., & Giacobbi, P. (2004). The stress and coping responses of certified graduate athletic training students. *Journal of Athletic Training, 39*(2), 193-200.

Rice, R., Frone, M., & McFarlin, D. (1992). Work-nonwork conflict and the perceived quality of life. *Journal of Organizational Behavior, 13*, 155-168.

Rice, R., Philips, S., & McFarlin, D. (1990). Multiple discrepancies and pay satisfaction. *Journal of Applied Psychology, 75*, 386-393.

Ries, E. (2004). Mirror images: how PTs view their profession. *PT: Magazine of Physical Therapy, 12*(1), 38-44.

Robinson, G. E. (2003). Stresses on women physicians: Consequences and coping techniques. *Depression and Anxiety, 17*, 180-189.

Rozier, C. K., Raymond, M. J., Goldstein, M. S., & Hamilton, B. L. (1998). Gender and physical therapy career success factors. *Physical Therapy, 78*(7), 690-704.

Sabiston, K. B., & Summers, S. (2004). Life balancing opportunities: Pregnancy levae and flexible schedules. *NATA News*(July), 32-34.

Salvatori, P., Williams, R., Polatajko, H., & MacKinnon, J. (1992). The manpower shortage in occupational therapy: Implications for Ontario. *Canadian Journal of Occupational Therapy, 59*(1), 40-51.

Shanahan, M. M. (1993). A comparative analysis of recruitment and retention of health care professionals. *Heatlh Care Management Review, 18*(3), 41-51.

Sheehan, K. (2001). Email survey response rate: A review. *JCMC, 6*(2).

Smith-Ribner, D. (2003). State System of Higher Education v Pennsylvania Labor Relations Board (Vol. 408 CD 2002): Commonwealth Court of Pennsylvania.

Spector, P. (1985). Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. *American Journal of Community Psychology, 13*(6), 693-713.

Spector, P. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. Thousand Oaks, CA: Sage.

Staurowsky, E., & Scriber, K. (1998). An analysis of selected factors that affect the work lives of athletic trainers employed in accredited educational programs. *Journal of Athletic Training, 33*(3), 244-248.

Staw, B. (1980). The consequences of turnover. *JOurnal of Occupational Behaviour, 1*, 253-273.

Steel, R. P., & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behaviroal intentions and employee turnover. *Journal of Applied Psychology, 69*(4), 673-686.

Stilger, V., Etzel, E., & Lantz, C. (2001). Life-stress sources and symptoms of collegiate student athletic trainers over the course of an academic year. *Journal of Athletic Training, 36*(4), 401-407.

Tovey, E., & Adams, A. (1999). The changing nature of nurses' job satisfaciton: An exploration of sources of satisfaction in the 1990s. *Journal of Advanced Nursing, 30*(1), 150-158.

USDOL. (2006). Athletic Trainers. Retrieved 11/1/06, from http://www.bls.gov/oco/pdf/ocos294.pdf

Wall, T., & Martin, R. (1987). Job and work design. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 61-92). Chichester, UK: Wiley.

War, P., & Payne, R. (1983). Affective outcomes of paid employment in a random sample of British workers. *JOurnal of Occupational Behaviour, 4*, 91-104.

WATC. (1996a). Men in athletic training survey. Retrieved 2/18/07, from http://www.nata.org/members1/committees/watc/watc_membersurvey/watc_membersurvey/surveymen.htm

WATC. (1996b). Women in athletic training survey. Retrieved 2/18/07, from http://www.nata.org/members1/committees/watc/watc_membersurvey/watc_membersurvey/surveywomen.htm

Webb, T. L., & Sheeran, P. (2006). Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence. *Psychological Bulletiin, 132*(2), 249-268.

Weisberg, J., & Kirschenbaum, A. (1991). Employee turnover intentions: Implications from a national sample. *The INternation Journal of Human Resource Management, 2*(3), 359-366.

Weisman, C., Alexander, C., & Chase, G. (1981). Determinants of hospital staff nurse turnover. *Medical Care, 19*(4), 431-443.

Winter-Collins, A., & McDaniel, A. (2000). Sense of belonging and new graduate job satisfaction. *Journal for Nurses in Staff Development, 16*(3), 103-111.

Winterstein, A. P. (1998). Organizational commitment amonge intercollegiate head athletic trainers: Examining our work environment. *Journal of Athletic Training, 33*, 54-61.

Wolpert, R., & Yoshida, K. (1992). Attrition survey of physiotherapists in Ontario. *Physiotherapy Canada, 44*(2), 17-24.

Yusof, A. (1999). *The relationship between transformational leadership behaviors of athletic directors and leadership substitutes variables with the job satisfaction of coaches at NCAA Division I and III institutions.* Unpublished Dissertation, The University of Connecticut.

APPENDIX A

PRINT VERSION OF THE ONLINE JOB SATISFACTION SURVEY (JSS) & INTENTION TO LEAVE SURVEY (ITLS)

Job Satisfaction and Intent to Leave the Profession of Athletic Training
Exit this survey >>

1. Job Satisfaction and Intent to Leave Survey

Welcome and thank you for agreeing to participate in this survey.

The purpose of this survey is to examine the job satisfaction of Certified Athletic Trainers employed in NCAA Divisions I, II, and III. A secondary purpose is to examine the relationship between job satisfaction and the intent to leave the athletic training profession.

These data are important as the NATA has recently experienced a decline in membership numbers.

The survey consists of three sections:

The first section deals with basic demographic information.

The second section is a 36-item Job Satisfaction Survey.

The final section is a 8-item Intent to Leave Athletic Training Survey.

It should take you no longer than 10 minutes to complete all 3 sections.

Completion of this survey indicates your consent to participate in this study. Institutional Review Board Approval has been granted by The University of North Carolina at Greensboro.

Please click the "next" button below to begin the survey.

Next >>

Job Satisfaction and Intent to Leave the Profession of Athletic Training
Exit this survey >>

2. Demographics

1. *Gender*

2. NCAA Division

3. NATA District

4. Years Certified

10-15

5. Primary Job Title

Other (please specify)

6. Primary employment classification

<< Prev Next >>

Job Satisfaction and Intent to Leave the Profession of Athletic Training

Exit this survey >>

3. Job Satisfaction Survey

This section will examine your job satisfaction. Please select the option which best represents your perspective for each question. All questions must be answered. At the end of this section, please click the "next" button to proceed to the following section.

1. I feel I am being paid a fair amount for the work I do

☐ I feel I am being paid a fair amount for the work I do	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

2. There is really too little chance for promotion on my job.

☐ There is really too little chance for promotion on my job.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

3. My supervisor is quite competent in doing his/her job.

☐ My supervisor is quite competent in doing his/her job.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

4. I am not satisfied with the benefits I receive.

☐ I am not	☐ Disagree	☐ Disagree	☐ Agree	☐ Agree	☐ Agree

satisfied with the benefits I receive.	Moderately	Slightly	Slightly	Moderately	Very Much

Disagree Very Much

5. When I do a good job, I receive the recognition for it that I should receive.

☐ When I do a good job, I receive the recognition for it that I should receive.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

6. Many of our rules and procedures make doing a good job difficult

☐ Many of our rules and procedures make doing a good job difficult	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

7. I like the people I work with.

☐ I like the people I work with.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

8. I sometimes feel my job is meaningless.

☐ I sometimes feel my job is	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

meaningless.
Disagree Very
Much

9. Communications seem good within this organization.

☐ Communications seem good within this organization. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

10. Raises are too few and far between.

☐ Raises are too few and far between. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

11. Those who do well on the job stand a fair chance of being promoted.

☐ Those who do well on the job stand a fair chance of being promoted. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

12. My supervisor is unfair to me.

☐ My supervisor is unfair to me. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

13. The benefits we receive are as good as most other organizations offer.

☐ The benefits we receive are as good as most other organizations offer. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

14. I do not feel that the work I do is appreciated.

☐ I do not feel that the work I do is appreciated. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

15. My efforts to do a good job are seldom blocked by red tape.

☐ My efforts to do a good job are seldom blocked by red tape. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

16. I find I have to work harder at my job because of the incompetence of people I work with.

☐ I find I have to work harder at my job because of the incompetence of people I	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

work with.
Disagree Very Much

17. I like doing the things I do at work.

☐ I like doing the things I do at work. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

18. The goals of this organization are not clear to me.

☐ The goals of this organization are not clear to me. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

19. I feel unappreciated by the organization when I think about what they pay me.

☐ I feel unappreciated by the organization when I think about what they pay me. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

20. People get ahead here as fast as they do in other places.

☐ People get ahead here as fast as they do in other places.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

21. My supervisor shows too little interest in the feelings of subordinates.

☐ My supervisor shows too little interest in the feelings of subordinates.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

22. The benefit package we have is equitable.

☐ The benefit package we have is equitable.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

23. There are few rewards for those who work here.

☐ There are few rewards for those who work here.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

24. I have too much to do at work.

☐ I have too much to do at work.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

25. I enjoy my coworkers.

☐ I enjoy my coworkers.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

26. I often feel that I do not know what is going on with the organization.

☐ I often feel that I do not know what is going on with the organization.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

27. I feel a sense of pride in doing my job.

☐ I feel a sense of pride in doing my job.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

28. I feel satisfied with my chances for salary increases.

☐ I feel satisfied with my chances for salary increases.	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

Disagree Very Much

29. There are benefits we do not have which we should have.

☐ There are benefits we do	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

not have
which we
should have.
Disagree Very
Much

30. I like my supervisor.

☐ I like my supervisor. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

31. I have too much paperwork.

☐ I have too much paperwork. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

32. I don't feel my efforts are rewarded the way they should be.

☐ I don't feel my efforts are rewarded the way they should be. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

33. I am satisfied with my chances for promotion.

☐ I am satisfied with my chances for promotion. Disagree Very Much	☐ Disagree Moderately	☐ Disagree Slightly	☐ Agree Slightly	☐ Agree Moderately	☐ Agree Very Much

34. There is too much bickering and fighting at work.

There is too much bickering and fighting at work.	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Very Much

Disagree Very Much

35. My job is enjoyable.

My job is enjoyable.	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Very Much

Disagree Very Much

36. Work assignments are not fully explained.

Work assignments are not fully explained.	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Very Much

Disagree Very Much

<< Prev Next >>

Job Satisfaction and Intent to Leave the Profession of Athletic Training

Exit this survey >>

4. Intent to Leave Survey

This section will examine your intent to leave the profession of athletic training. Please select the option which best represents your persepective for each question. All questions must be answered. At the end of this section, please click the "next" button to proceed to the following section.

1. Within the past 6 months how often have you considered leaving the athletic training

profession?

Within the past 6 months how often have you considered leaving the athletic training profession? Never	A little	A lot	Constantly

2. Within the past 6 months how actively have you pursued a job outside of athletic training?

Within the past 6 months how actively have you pursued a job outside of athletic training? I have done nothing	I have made inquiries into jobs outside of AT	I have applied for jobs outside of AT	I have accepted jobs outside of AT

3. Within the past 6 months how often have you considered exploring other career opportunities in another allied health field (physical therapy, nursing, physician assistant, etc.)?

Within the past 6 months how often have you considered exploring other career opportunities in another allied health field (physical therapy, nursing, physician assistant, etc.)? Never	A little	A lot	Constantly

4. Within the past 6 months how often have you considered exploring other career opportunities in a field outside of allied health?

Within the past 6 months how often have you considered exploring other career opportunities in a field outside of allied health? Never	A little	A lot	Constantly

5. What is the probability you will be working in the athletic training profession one year from today?

What is the probability you will be working in the athletic training profession one year from today?	☐ Excellent (75-100%)	☐ Good (50-74%)	☐ Fair (25-49%)	☐ Poor (0-24%)

6. What is the probability you will be working in another allied health field (physical therapy, nursing, physician assistant, etc.) one year from today?

What is the probability you will be working in another allied health field (physical therapy, nursing, physician assistant, etc.) one year from today?	☐ Excellent (75-100%)	☐ Good (50-74%)	☐ Fair (25-49%)	☐ Poor (0-24%)

<< Prev Next >>

Job Satisfaction and Intent to Leave the Profession of Athletic Training

Exit this survey >>

5. Intent to Leave/Allied Health Field

1. If you were in another allied health field one year from today, what is the probability you would retain your ATC credential?

If you were in another allied health field one year from today, what is the probability you would retain your ATC credential? Excellent (75-100%)	Good (50-74%)	Fair (25-49%)	Poor (0-24%)

2. If you were in another allied health field one year from today, what is the probability you would continue your NATA membership?

If you were in another allied health field one year from today, what is the probability you would continue your NATA membership? Excellent (75-100%)	Good (50-74%)	Fair (25-49%)	Poor (0-24%)

<< Prev Next >>

Job Satisfaction and Intent to Leave the Profession of Athletic Training

Exit this survey >>

6. Intent to Leave Survey II

1. What is the probability you will be working in a field outside of allied health one year from today?

☐ What is the probability you will be working in a field outside of allied health one year from today? Excellent (75-100%)

☐ Good (50-74%)

☐ Fair (25-49%)

☐ Poor (0-24%)

<< Prev Next >>

Job Satisfaction and Intent to Leave the Profession of Athletic Training

Exit this survey >>

7. Intent to Leave/Outside Allied Health

1. If you were in a field outside of allied health one year from today, what is the probability you would retain you ATC credential?

If you were in a field outside of allied health one year from today, what is the probability you would retain you ATC credential? Excellent (75-100%)	Good (50-74%)	Fair (25-49%)	Poor (0-24%)

2. If you were in a field outside of allied health one year from today, what is the probability you would retain your NATA membership?

If you were in a field outside of allied health one year from today, what is the probability you would retain your NATA membership? Excellent (75-100%)	Good (50-74%)	Fair (25-49%)	Poor (0-24%)

<< Prev Next >>

Job Satisfaction and Intent to Leave the Profession of Athletic Training
Exit this survey >>

8. Thank You

Thank you for completing this survey.

Please click the "Submit Survey" button at the bottom of this page.

By clicking and submitting you are agreeing to participate in this study.

Thank you for your time and consideration in this study.

This web page will close after your submission

<< Prev SUBMIT SURVEY

APPENDIX B

E-mail Solicitation Letter and Informed Consent

Dear Certified Athletic Trainer,

I am a doctoral student at the University of North Carolina at Greensboro currently pursuing my Doctor of Education (Ed.D.) degree in Exercise and Sport Science. I am examining job satisfaction and intention to leave the profession of athletic training in Certified Athletic Trainers among the NCAA Divisions I, II, and III. These data are important as there has recently been a decline in NATA membership. I received your e-mail from the NATA Membership Database and am asking for your assistance in completing an on-line survey at URL listed at the bottom of this letter.

The survey consists of three sections: 1) Demographics, 2) Job Satisfaction Survey, and 3) Intention to Leave Athletic Training Survey.

To participate in this study you need to be:
A Certified Athletic Trainer in good standing with the BOC.
Currently employed (part-time or full-time) at an NCAA college or university.

You will access the survey by clicking the link at the bottom of this letter and then be directed to a remote web site. You are asked to answer the questions honestly. You will not be identified in any way and all responses will be confidential. Your participation is voluntary and you may wish to withdrawal at any time by discontinuing the survey. If you do not wish to receive future solicitation asking for your participation you may click here: http://www.surveymonkey.com/optout.aspx and be removed from the sampling list.

By submitting the survey you are providing informed consent for your participation in the study. This survey has been approved by the University of North Carolina at Greensboro Institutional Review Board.

The results of this study may be used in future publications however no identification will be used. The raw data will be secured on a data-based server and password protected CD-ROM, and will be destroyed three years after the publication of results. A copy of the results will be made available upon request. Please feel free to contact with any questions regarding this study.

Thank you for your time and consideration,

Aaron Terranova, M.Ed., ATC, LAT
atcjsanditl@gmail.com

336-334-5925

Please click this link to access the survey : http://www.surveymonkey.com/s.aspx

Participant for this survey were selected at random from the NATA membership database according to the selection criteria provided by the investigator. This survey is not endorsed by the NATA. It is being sent to you because of the NATA's commitment to athletic training education and research.

APPENDIX C

Follow-up Solicitation Letter and Informed Consent

Dear Certified Athletic Trainer,

If you have already completed this survey, thank you, and please disregard this follow-up e-mail. I apologize for any inconvenience this may cause you, and again thank you for your contributions.

I am a doctoral student at the University of North Carolina at Greensboro currently pursuing my Doctor of Education (Ed.D.) degree in Exercise and Sport Science. I am examining job satisfaction and intention to leave the profession of athletic training in Certified Athletic Trainers among the NCAA Divisions I, II, and III. These data are important as there has recently been a decline in NATA membership. I received your e-mail from the NATA Membership Database and am asking for your assistance in completing an on-line survey at URL listed at the bottom of this letter.

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Currently employed (part-time or full-time) at an NCAA college or university.

You will access the survey by clicking the link at the bottom of this letter and then be directed to a remote web site. You are asked to answer the questions honestly. You will not be identified in any way and all responses will be confidential. Your participation is voluntary and you may wish to withdrawal at any time by discontinuing the survey. If you do not wish to receive future solicitation asking for your participation you may click here: http://www.surveymonkey.com/optout.aspx and be removed from the sampling list.

By submitting the survey you are providing informed consent for your participation in the study. This survey has been approved by the University of North Carolina at Greensboro Institutional Review Board.

The results of this study may be used in future publications however no identification will be used. The raw data will be secured on a data-based server and password protected CD-ROM, and will be destroyed three years after the publication of results. A copy of the results will be made available upon request. Please feel free to contact with any questions regarding this study.

Thank you for your time and consideration,

Aaron Terranova, M.Ed., ATC, LAT
atcjsanditl@gmail.com
336-334-5925

Please click this link to access the survey : http://www.surveymonkey.com/s.aspx

Participant for this survey were selected at random from the NATA membership database according to the selection criteria provided by the investigator. This survey is not endorsed by the NATA. It is being sent to you because of the NATA's commitment to athletic training education and research

Appendix D

Additional Results Tables

Table 16.

Principle Component Analysis of the JSS Using a Varimax Rotation with Kaiser Normalization.

Item	*Component*								
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
30	.84	.10	.06	.15	.03	.21	-.05	.16	-.02
3	.82	.13	-.06	.01	.05	.14	-.05	.16	.07
12	.80	.15	.09	.07	.08	.21	.01	.02	.13
21	.78	.21	.11	.06	.08	.09	.10	.19	.08
36	.49	.17	.12	.13	.15	.20	.30	.21	-.07
5	.49	.46	.06	.21	.23	-.05	.11	.18	-.04
34	.43	.14	.02	.06	.04	.41	.28	.36	-.03
19	.09	.80	.13	.16	.11	.02	.08	.15	.06
1	.09	.68	.10	.13	.09	.08	.02	.06	-.23
32	.26	.65	.04	.25	.07	.11	.25	.12	.14
28	.13	.63	.29	.37	-.01	.02	-.03	-.02	.06
14	.30	.59	.05	.24	.28	-.01	.14	.17	.11
10	-.00	.57	.33	.05	-.24	.16	.06	-.02	.36
23	.13	.56	.20	.41	.05	.12	.16	.21	.05
22	.09	.16	.88	.09	.04	.03	.08	-.01	-.12
13	.15	.11	.84	.05	.08	-.00	.14	-.05	.00
4	-.09	.03	.73	.12	.01	.06	-.12	.04	.27
29	.07	.25	.72	-.09	.01	.04	.02	.16	-.06
33	.12	.35	.13	.76	.04	-.04	.04	.10	-.06
11	.18	.32	.01	.66	.06	.19	.02	-.01	.00
20	.17	.19	.06	.66	.15	-.09	.26	.06	.03
2	-.14	.15	-.10	.61	.03	.23	-.13	.23	.41
27	.12	.09	-.02	.04	.82	.09	-.17	.05	.19
17	-.04	-.05	.15	.02	.75	.05	.21	.20	-.16
35	.25	.21	.06	.26	.70	.25	.10	.10	-.04
8	.24	.37	-.08	-.01	.53	-.16	.19	-.05	.42
25	.36	-.04	.11	.16	.13	.73	.10	.04	-.07
7	.47	.01	.03	.14	.14	.67	.08	.09	-.02
16	.20	.18	.05	-.10	.06	.63	.24	.18	.12
15	.38	-.17	.05	.02	.10	-.39	.33	.18	.14
31	-.02	.16	-.09	-.02	-.03	.28	.78	.11	.05

24	.06	.17	.17	.19	.10	.06	.76	.07	.09
26	.34	.12	.18	.14	.08	.01	.13	.74	-.01
18	.25	.18	-.06	.07	.18	.13	.09	.72	.12
9	.37	.29	.04	.12	.16	.27	.08	.47	.08
6	.35	.00	.12	.12	.12	-.06	.34	.17	.62

Table 17.

Interclass Correlation Between the Nine Subscales of the JSS During Pilot Testing.

Inter-Item Correlation Matrix									
	1	2	3	4	5	6	7	8	9
Pay	1.00								
Promo	0.78	1.00							
Super	0.46	0.32	1.00						
Benefits	0.60	0.58	0.20	1.00					
Reward	0.78	0.68	0.69	0.61	1.00				
Condition	0.42	0.35	0.51	0.47	0.65	1.00			
Coworkers	0.22	0.14	0.74	0.37	0.46	0.48	1.00		
Nature	0.17	0.29	0.29	0.29	0.35	0.52	0.45	1.00	
Communication	0.42	0.43	0.63	0.63	0.70	0.63	0.71	0.47	1.00

Table 18.

Interclass Cronbach's Coefficient α for the Pilot Version of the JSS Subscales and Total Score.

Scale	Number of Items	Coefficient α
Total Job Satisfaction	36	0.95
Subscales		
Pay	4	0.86
Promotion	4	0.72
Supervision	4	0.88
Fringe Benefits	4	0.88
Contingent Rewards	4	0.93
Operating Conditions	4	0.79
Coworkers	4	0.63
Nature of Work	4	0.81
Communication	4	0.84

Table 19.

Interclass Correlations of the ITLS During Pilot Testing.

Inter-Item Correlation Matrix							
	1	2	3	4	5	6	7
Itlnahfyr	1.00						
Itlleave	0.72	1.00					
itlpursued	0.40	0.64	1.00				
Itlahf	0.01	0.03	-0.21	1.00			
Itlnahf	0.73	0.82	0.60	-0.07	1.00		
Itlatyr	0.94	0.77	0.58	-0.02	0.76	1.00	
Itlahfyr	0.16	0.39	0.34	0.52	0.50	0.24	1.00

Cronbach's Alpha	N of Items
0.85	7.00

Table 20.

Descriptive Statistics for the 36 Items of the JSS.

Item #	Mean	Standard Deviation
1	2.65	1.45
2	2.80	1.38
3	4.77	1.44
4	3.94	1.57
5	3.48	1.46
6	4.03	1.24
7	5.12	0.94
8	4.47	1.40
9	3.57	1.48
10	2.49	1.45
11	3.10	1.29
12	5.00	1.31
13	3.94	1.50
14	3.56	1.39
15		
16	3.98	1.59
17	5.09	.81
18	4.31	1.34
19	2.70	1.47

20	2.860	1.12
21	4.36	1.51
22	3.96	1.52
23	3.16	1.25
24	3.05	1.36
25	5.07	1.06
26	3.57	1.27
27	5.24	0.89
28	2.84	1.39
29	3.12	1.39
30	4.80	1.35
31	3.28	1.43
32	2.97	1.27
33	2.82	1.29
34	4.22	1.46
35	4.83	0.96
36	4.15	1.35

Table 21.

Factorial ANOVA Model Summaries of the JSS Subscales Based on NCAA Division and Primary Job Title.

Factorial ANOVA Model Summary of JSS Supervision Subscale Based on NCAA Division and Primary Job Title.					
Source	*Sum of Squares*	*DF*	*Mean Square*	*F*	*Sig.*
Division	11.83	2	5.91	.10	.91
Job Title	204.34	2	102.17	1.72	.18
Division * Job Title	128.65	4	32.16	.54	.71
Error	10785.98	182	59.26		
Total	191715.00	191			

Factorial ANOVA Model Summary of JSS Pay & Rewards Subscale Based on NCAA Division and Primary Job Title.					
Source	*Sum of Squares*	*DF*	*Mean Square*	*F*	*Sig.*
Division	45.57	2	22.78	.44	.65
Job Title	69.91	2	34.95	.67	.51
Division * Job Title	206.98	4	51.75	.99	.42
Error	9527.44	182	52.35		
Total	87630.00	191			

Factorial ANOVA Model Summary of JSS Fringe Benefits Subscale Based on NCAA Division and Primary Job Title.					
Source	*Sum of Squares*	*DF*	*Mean Square*	*F*	*Sig.*
Division	24.06	2	12.03	.57	.57

Job Title	330.94	2	165.47	7.82	.00
Division * Job Title	122.00	4	30.50	1.44	.22
Error	3851.18	182	21.16		
Total	48345.00	191			

Factorial ANOVA Model Summary of JSS Promotion Subscale Based on NCAA Division and Primary Job Title.

Source	*Sum of Squares*	*DF*	*Mean Square*	*F*	*Sig.*
Division	31.71	2	15.86	1.10	.33
Job Title	18.21	2	9.11	.63	.53
Division * Job Title	66.21	4	16.55	1.15	.33
Error	2616.93	182	14.38		
Total	27826.00	191	14.38		

Factorial ANOVA Model Summary of JSS Nature of Work Subscale Based on NCAA Division and Primary Job Title.

Source	*Sum of Squares*	*DF*	*Mean Square*	*F*	*Sig.*
Division	2.20	2	1.10	.12	.89
Job Title	2.90	2	1.45	.16	.86
Division * Job Title	93.31	4	23.33	2.52	.04
Error	1684.18	182	9.25		
Total	75252.00	191			

Factorial ANOVA Model Summary of JSS Coworkers Subscale Based on NCAA Division and Primary Job Title.

Source	*Sum of Squares*	*DF*	*Mean Square*	*F*	*Sig.*
Division	15.54	2	7.77	.91	.41
Job Title	23.74	2	11.87	1.38	.25
Division * Job Title	23.81	4	5.95	.69	.60
Error	1560.71	182	8.58		
Total	40033.00	191			

Factorial ANOVA Model Summary of JSS Operating Conditions Subscale Based on NCAA Division and Primary Job Title.

Source	*Sum of Squares*	*DF*	*Mean Square*	*F*	*Sig.*
Division	21.43	2	10.72	2.15	.12
Job Title	119.61	2	59.81	12.00	.00
Division * Job Title	19.22	4	4.8	.96	.43
Error	906.58	182	4.98		
Total	8691.00	191			

Factorial ANOVA Model Summary of JSS Communication Subscale Based on NCAA Division and Primary Job Title.

Source	*Sum of Squares*	*DF*	*Mean Square*	*F*	*Sig.*
Division	9.53	2	4.76	.43	.65
Job Title	31.55	2	15.77	1.43	.24
Division * Job Title	37.55	4	9.39	.85	.49
Error	2003.06	182	11.00		
Total	27163.00	191			

Table 22.

ANOVA Summary of JSS Subscales and Gender.

		Sum of Squares	df	Mean Square	F	Sig.
Supervision	Between Groups	24.76	1	24.76	.42	.52
	Within Groups	11103.18	189	58.75		
	Total	11127.94	190			
Pay & Rewards	Between Groups	12.55	1	12.55	.24	.62
	Within Groups	9770.67	189	51.70		
	Total	9783.22	190			
Fringe Benefits	Between Groups	19.63	1	19.63	.84	.36
	Within Groups	4445.66	189	23.52		
	Total	4465.29	190			
Promotion	Between Groups	16.01	1	16.01	1.10	.30
	Within Groups	2745.36	189	14.53		
	Total	2761.37	190			
Nature of Work	Between Groups	3.03	1	3.03	.32	.57
	Within Groups	1780.30	189	9.42		
	Total	1783.33	190			
Coworkers	Between Groups	.00	1	.00	.00	1.00
	Within Groups	1610.59	189	8.52		
	Total	1610.59	190			
Operating Conditions	Between Groups	8.16	1	8.16	1.43	.23
	Within Groups	1080.62	189	5.72		
	Total	1088.78	190			
Communication	Between Groups	32.12	1	32.12	2.97	.09
	Within	2043.33	189	10.81		

Groups		
Total	2075.46	190

Table 23.

ANOVA Summary of JSS Subscales and NATA District.

		Sum of Squares	df	Mean Square	F	Sig.
Supervision	Between Groups	323.23	9	35.91	.59	.81
	Within Groups	8394.91	137	61.28		
	Total	8718.14	146			
Pay & Rewards	Between Groups	653.74	9	72.64	1.54	.14
	Within Groups	6452.71	137	47.10		
	Total	7106.45	146			
Fringe Benefits	Between Groups	122.77	9	13.64	.57	.82
	Within Groups	3261.21	137	23.80		
	Total	3383.97	146			
Promotion	Between Groups	94.87	9	10.54	.69	.72
	Within Groups	2084.98	137	15.22		
	Total	2179.85	146			
Nature of Work	Between Groups	70.18	9	7.80	.79	.62
	Within Groups	1345.79	137	9.82		
	Total	1415.97	146			
Coworkers	Between Groups	26.63	9	2.96	.34	.96
	Within Groups	1198.77	137	8.75		
	Total	1225.40	146			
Operating Conditions	Between Groups	69.22	9	7.69	1.43	.18
	Within Groups	735.97	137	5.37		
	Total	805.18	146			
Communication	Between Groups	89.85	9	9.98	.88	.55
	Within	1563.38	137	11.41		

	Groups		
	Total	1653.22	146

Table 24.

ANOVA Summary of JSS Subscales and Years Certified.

		Sum of Squares	df	Mean Square	F	Sig.
Supervision	Between Groups	89.54	3	29.85	.50	.68
	Within Groups	11037.84	186	59.34		
	Total	11127.37	189			
Pay & Rewards	Between Groups	17.38	3	5.79	.11	.95
	Within Groups	9727.34	186	52.30		
	Total	9744.72	189			
Fringe Benefits	Between Groups	238.06	3	79.35	3.52	.02
	Within Groups	4192.91	186	22.54		
	Total	4430.97	189			
Promotion	Between Groups	65.71	3	21.90	1.53	.21
	Within Groups	2665.74	186	14.33		
	Total	2731.45	189			
Nature of Work	Between Groups	46.28	3	15.43	1.66	.18
	Within Groups	1730.19	186	9.30		
	Total	1776.47	189			
Coworkers	Between Groups	14.54	3	4.85	.57	.64
	Within Groups	1588.07	186	8.54		
	Total	1602.61	189			
Operating Conditions	Between Groups	98.34	3	32.78	6.16	.00
	Within Groups	989.96	186	5.32		
	Total	1088.30	189			
Communication	Between Groups	5.81	3	1.94	.18	.91
	Within	2039.67	186	10.97		

	Groups		
	Total	2045.48	189

Table 25.

ANOVA Summary of JSS Subscales and Employment Classification.

		Sum of Squares	df	Mean Square	F	Sig.
Supervision	Between Groups	96.16	1	96.16	1.65	.20
	Within Groups	11031.78	189	58.37		
	Total	11127.94	190			
Pay & Rewards	Between Groups	.66	1	.66	.01	.91
	Within Groups	9782.56	189	51.76		
	Total	9783.22	190			
Fringe Benefits	Between Groups	2.27	1	2.27	.10	.76
	Within Groups	4463.02	189	23.61		
	Total	4465.29	190			
Promotion	Between Groups	13.99	1	13.99	.96	.33
	Within Groups	2747.39	189	14.54		
	Total	2761.37	190			
Nature of Work	Between Groups	11.01	1	11.01	1.17	.28
	Within Groups	1772.32	189	9.38		
	Total	1783.33	190			
Coworkers	Between Groups	27.94	1	27.94	3.34	.07
	Within Groups	1582.64	189	8.37		
	Total	1610.59	190			
Operating Conditions	Between Groups	27.37	1	27.37	4.87	.03
	Within Groups	1061.41	189	5.62		
	Total	1088.78	190			
Communication	Between Groups	7.04	1	7.04	.64	.42
	Within	2068.42	189	10.94		

	Groups		
	Total	2075.46	190