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**Employment Satisfaction Among Athletic Trainers: A Study of the  
Relationship of Personality Traits and Employment Setting**

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EMPLOYMENT SATISFACTION AMONG ATHLETIC TRAINERS: A STUDY OF  
THE RELATIONSHIP OF PERSONALITY TRAITS AND EMPLOYMENT SETTING

BY

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## ABSTRACT

**Context:** Personality differences among athletic trainers have been investigated in regards to both burnout and job satisfaction, frequently utilizing the Big Five Personality Inventory as a tool to distinguish those differences. While this information is useful in determining differences among a population of unsatisfied or burned out athletic trainers, there is a lack of research regarding differences in personality traits between settings and roles. **Objective:** The objective of this research was to determine significant differences between the Big Five Inventory (BFI) and both job settings and roles within the field of athletic training while also determining correlations between BFI results and reported job satisfaction. **Design:** Survey. **Setting:** This research was conducted through a survey via the Qualtrics website. **Patients or Other Participants:** This survey was sent to athletic trainers across all settings distinguished by the National Athletic Trainers' Association: college/university, higher education, secondary schools, professional sports, healthcare administration and rehabilitation, military, occupational health, performing arts, physician practice, and public safety. The NATA Research Survey Service was used to construct and distribute the survey. **Instrumentation:** Data was collected using a Web-based survey instrument consisting of 3 sections: (1) The Big Five Personality Inventory (BFI), (2) The Job Satisfaction Survey (JSS), nature of work facet, and (3) demographics. **Main Outcome Measure(s):** Multiple univariate analyses (ANOVAs) were run to determine significant differences between BFI results and demographic information. Post hoc independent t-tests were used to distinguish significant differences in BFI results between job settings. Pearson Correlations were run to determine relationships between

BFI results and JSS results. **Key Words:** Personality, Big Five Inventory (BFI), Job Satisfaction.

## LIST OF TABLES

Table 1

*Big Five Inventory Results Across General Athletic Training Settings (RQ1, multiple univariate analyses)*

	<u>Extraversion</u>	<u>Agreeableness</u>	<u>Conscientiousness</u>	<u>Neuroticism</u>	<u>Openness</u>
Collegiate (n=62)	28.00 (6.942)	28.65 (3.599)	37.21 (4.235)	22.42 (6.240)	33.58 (5.275)
Education (n=9)	27.00 (6.764)		36.67 (4.873)		35.56 (5.223)
Secondary School (n=55)	26.11 (6.205)	28.55 (3.120)	37.38 (4.466)	20.02 (5.817)	34.25 (5.215)
Non- Traditional (n=24)	26.71 (5.714)	29.46 (2.750)	38.50 (3.563)	22.79 (4.374)	35.58 (5.090)

*Note.* The values listed are the mean scores of the summations for each of the BFI facets.

The parentheses indicate the standard deviations.



Table 2

*Big Five Inventory Results for DI vs Other Settings (RQ1, multiple univariate analyses)*

	<u>Extraversion</u>	<u>Agreeableness</u>	<u>Conscientiousness</u>	<u>Neuroticism</u>	<u>Openness</u>
DI (n=26)	25.81 (6.693)	28.69 (4.116)	37.69 (4.823)	21.81 (6.007)	33.65 (5.403)
DII (n=14)	31.50 (6.124)	28.76 (3.577)	36.43 (4.380)	23.21 (7.170)	33.43 (4.620)
DIII/NAIA/JuCo (n=22)	28.36 (7.014)	28.59 (3.217)	37.09 (3.584)	22.45 (7.056)	33.59 (5.729)
Secondary School (n=55)	26.11 (6.205)	28.55 (3.120)	37.25 (4.575)	19.89 (5.980)	34.25 (5.215)
Non-Traditional (n=24)	26.71 (5.714)	29.46 (2.750)	38.50 (3.563)	22.58 (4.605)	35.58 (5.090)

*Note.* The values listed are the mean scores of the summations for each of the BFI facets.

The parentheses indicate the standard deviations.

Table 3

*Big Five Inventory Results Across Athletic Training Roles (RQ2, multiple univariate analyses)*

	<u>Extraversion</u>	<u>Agreeableness</u>	<u>Conscientiousness</u>	<u>Neuroticism</u>	<u>Openness</u>
Head (n=57)	26.84 (5.934)	28.33 (3.318)	37.25 (4.223)	20.40 (6.112)	33.68 (4.830)
Associate/ Assitant/ GA/ Intern/ Fellow (n=67)	27.18 (7.090)	29.25 (3.399)	37.06 (4.221)	22.24 (6.291)	34.43 (5.641)
Educator (n=16)	28.06 (6.884)	28.50 (2.309)	37.38 (4.674)	22.75 (1.732)	35.31 (4.483)
Outreach/PRN (n=12)	24.92 (6.022)	29.92 (2.843)	40.42 (2.712)	19.58 (2.539)	34.50 (5.551)

*Note.* The values listed are the mean scores of the summations for each of the BFI facets.

The parentheses indicate the standard deviations.

Table 4

*Big Five Inventory Results for Management vs. Non-Management Roles (RQ2, multiple univariate analyses)*

	<u>Extraversion</u>	<u>Agreeableness</u>	<u>Conscientiousness</u>	<u>Neuroticism</u>	<u>Openness</u>
Management (n=63)	27.00 (5.938)	28.32 (3.217)	37.33 (4.154)	20.63 (6.084)	34.05 (5.059)
Non- Management (n=91)	26.92 (6.903)	29.13 (3.380)	37.45 (4.367)	21.75 (6.091)	34.58 (5.461)

*Note.* The values listed are the mean scores of the summations for each of the BFI facets.

The parentheses indicate the standard deviations.

Table 5

*Big Five Inventory Results Compared to Job Satisfaction Survey Results (RQ3, Pearson correlations)*

		<u>Neuroticism</u>	<u>Extraversion</u>	<u>Agreeableness</u>	<u>Conscientiousness</u>	<u>Openness</u>
		<u>Total</u>	<u>Total</u>	<u>Total</u>	<u>Total</u>	<u>Total</u>
JSS	N	153	153	153	153	153
Total						
	Pearson Correlation	-.182*	.284**	.062	.127	.122
	Sig. (2-tailed)	.024	.000	.444	.116	.133

*Notes.* Neuroticism  $R^2=0.033$  ( $p=0.024$ ), Extraversion  $R^2=0.080$  ( $p=0.001$ )

## **CHAPTER 1**

### **INTRODUCTION**

The Big Five Inventory (BFI) is one of the most widely recognized and utilized personality assessment in literature. The BFI assesses the strength of five personality facets: extraversion, agreeableness, conscientiousness, neuroticism, and openness. While the BFI does not determine a specific personality type like the Myers-Briggs Type Indicator does, it does provide a standardized means of determining local norms throughout a testing population.

Defined by the National Athletic Trainers' Association (NATA), the settings within the field of athletic training are as follows: College/University, Higher Education, Secondary Schools, and Professional Sports. The emerging settings within athletic training are as follows: Healthcare Administration/Rehabilitation, Military, Occupational Health, Performing Arts, Physician Practice, and Public Safety.

There is no known literature that explores the BFI as it applies to these settings as defined by the NATA, nor is there known literature that explores the BFI as it applies to athletic trainers' roles within these settings. The aim of this research was to distinguish whether or not the BFI facets demonstrated any significant differences across athletic settings and roles, and whether or not these facets were correlated to job satisfaction.

#### **Statement of the Problem**

In the field of athletic training, there exists a lack of research regarding personality and how it relates to fitness or satisfaction within the field, and furthermore, within specific settings of the field itself. In addition to this, research shows that athletic

trainers are prone to burnout which is a factor of job satisfaction, and that attrition rates within the field are becoming lower, especially for female athletic trainers. Research has been conducted to determine if external factors such as time commitment and pay are correlated to this increase in burnout and feelings of job dissatisfaction, however, little attention has been given to internal factors such as personality traits or broader types.

### **Purpose of the Study**

The purpose of this research was to determine local norms of the five traits of the BFI across the settings of athletic training and roles within those settings to determine if there appeared to be significant differences between settings, roles, and Big Five personality facets as well as correlations between Big Five personality facets and job satisfaction.

### **Research Questions and Hypotheses**

**RQ1:** Are there significant differences between BFI personality traits and employment settings within athletic training?

- **H<sub>1</sub>:** Athletic trainers working in NCAA D1 settings will score highest on the BFI in Extraversion and Neuroticism.
- **H<sub>01</sub>:** There will be no significant correlations between BFI personality traits and employment settings.

**RQ2:** Are there significant differences between BFI personality traits and employment roles?

- **H<sub>2</sub>:** Those athletic trainers in management roles will score relatively higher on the BFI in Extraversion.
- **H<sub>02</sub>:** There will be no significant correlations between BFI personality traits and roles.

**RQ<sub>3</sub>:** Are there significant correlations between BFI personality traits and JSS scores?

- **H<sub>3</sub>:** Athletic trainers in any setting or role who rate Neuroticism relatively higher on the BFI will also demonstrate lower rates of satisfaction as scored on the JSS questions.
- **H<sub>03</sub>:** There will be no significant correlations between BFI results and JSS results.

### **Operational Definitions**

1. Big Five Personality Inventory: An assessment that provides summation scores of the five broadest facets of personality: extraversion, conscientiousness, agreeableness, neuroticism, and openness. It is a self-assessment questionnaire scored via Likert scale. Scores are relative to that of other individuals within a sample population. The assessment does not label an individual as a certain type of personality but rather indicates how potent certain traits are and provide a stepping stone into further assessment of those traits.
2. Extraversion: The facet of personality that describes engagement with other people and willingness to socialize.
3. Conscientiousness: The facet of personality that describes order and responsibility and a dependability of a person with awareness of surroundings.

4. Agreeableness: The facet of personality that describes a trustfulness and a sense of connectedness.
5. Neuroticism: The facet of personality that describes emotional turbulence, lack of emotional stability or steadfastness.
6. Openness: The facet of personality that describes intellect and imagination, the ability to stay open to the world and seek new knowledge.
7. Job Satisfaction Survey: A 36 statement questionnaire that scores the nine facets of job satisfaction across four questions each. Scoring is done via a Likert scale describing agreement from strongly disagree to strongly agree.

### **Assumptions**

1. It was assumed that participants of the study would be truthful in their answers of both the BFI questionnaire, the JSS questionnaire, and the demographic questions.
2. It was assumed that the survey was functional and that all participants were able to complete it without technical difficulty.

### **Limitations**

The limitations of this study include:

1. The 1,000 data points given by the NATA to student researchers, therefore limiting the number of participants.
2. Some potential participants may decide to not take the survey due to lack of time or interest.
3. The researcher was only able to dedicate one academic year to the study.

**Delimitations**

1. Subjects will be limited to those currently working within the desired settings of athletic training.
2. The online survey will report results immediately and anonymously to the researcher.
3. The results will be protected by a password protected account on a password protected computer.
4. No IP addresses nor email addresses were collected or archived via the survey results.
5. There were no physical requirements of the study therefore it does not limit participation in regards to physical status.

**Significance of the Study**

This study aimed to determine if differences in personality traits can be seen across the field of athletic training, or if personality traits are independent from settings and roles. As there is an increase in the number and types of settings as well as a move towards entry-level Masters undergraduate education, more time and money are being spent to enter an ever-broadening field of practice. This study may benefit athletic trainers who are seeking different settings within the field and additionally, this study can benefit students who enter athletic training education programs by providing a framework describing where they may best fit into the profession of athletic training, leading to meaningful decisions in regards to their clinical education. Furthermore, the BFI may be



able to assist program directors and clinical coordinators in placing students in clinical positions that best promote further success and job satisfaction as athletic trainers.

## **CHAPTER 2**

### **LITERATURE REVIEW**

The following literature review begins with a discussion of the popular Myers-Briggs Type Indicator as a personality assessment and its significance as a tool to achieve greater self-awareness. Following the Myers-Briggs Type Indicator will be the Big Five Inventory, which is also a popular personality assessment. The difference being that the Big Five Inventory seeks only to discuss certain personality traits and their prevalence, rather than assigning specific a specific personality type to the participant like the Myers-Briggs. A brief history and a discussion of validity and reliability are explained. The application of the Myers-Briggs is addressed and its popularity within the field of business and its emergence in the field of healthcare are described, providing evidence to support the necessity of self-awareness in job placement for success. Application of the Big Five Inventory follows, describing the many fields in which it has been applied, including the field of athletic training. Its correlations with the Maslach Burnout scale are addressed and its use in research regarding job satisfaction is also unpacked. The literature will conclude with a discussion of the Job Satisfaction Survey as a means to help determine job satisfaction and distinguish between athletic training setting and influence of either job satisfaction or personality traits.

#### **The Myers-Briggs Type Indicator**

The Myers-Briggs Type Indicator (MBTI) is a personality assessment that describes sixteen personality types. Based on Carl Jung's theories, the MBTI is a popular assessment used to determine how an individual interacts with the world around them, focusing on preferences of interaction and information deposition rather than on abilities

and competencies. According to Amato and Amato (2005), the MBTI is the most widely utilized personality assessment in the world. The assessment focuses on an individual's attitude as either preferring extraversion or introversion, expressed as either "E" or "I"; how an individual prefers to receive information by either sensing or intuition, expressed as either "S" or "N"; how an individual prefers to process that information by either thinking or feeling, expressed as either "T" or "F"; and how an individual prefers to deposit that information by either judging or perceiving, expressed as "J" or "P". The result of the assessment is a string of four letters that describes how that individual prefers to engage with and live in the world (Amato & Amato, 2005). For example, as an ENFP, I exhibit preferences for extraversion, intuition, feeling, and perceiving.

The MBTI is a greater development and application of the theories of psychologist Carl Jung who believed that every person is born with predispositions to traits and the combination of both nature and nurture would make these traits known (Blutner & Hochnadel, 2010). Jung's opinions of extraversion and introversion are among his most popular. He theorized that all people have the capability to express both an outward fascination with the world as well as an inward fascination within oneself, however, individuals show a preference for one over the other throughout their life (Blutner & Hochnadel, 2010). Extraversion focuses on the outer world and its collective thoughts, ideas, feelings, and actions while introversion focuses on the inner psyche and one's own thoughts, fantasies, feelings, and beliefs. People that prefer extraversion tend to be more sociable and people that prefer introversion tend to be more shy and reserved. Although these are not synonyms for the two, it is an important distinction that describes

how individuals prefer to interact and can drive people to be better suited for certain situations depending on whether they prefer extraversion or introversion .

The functions of sensing and intuition describe how a person gathers the information presented to them. Sensing gathers information by means of the senses, in a logical and concrete way. Intuition gathers information by means outside of the basic and concrete senses; "seeing around corners" as Jung has described it. As with extraversion and introversion, all people possess the ability to gather information by both sensing and intuition, however, individuals have preferences for their preferred means of gathering information (Blutner & Hochnadel, 2010).

Thinking and feeling serve as opposite and rational means of evaluating information. Thinking involves rational and logical evaluation while feeling involves evaluation based upon one's emotional response to the information gathered. Those who prefer thinking over feeling would often be more likely to view information as black and white while those who prefer feeling see life in varying shades of gray (Blutner & Hochnadel, 2010).

Judging and perceiving serve as a means of decision making after information has been gathered and evaluated. Judging functions prefer planning and quick decisions made based upon a list of what must be attended to. Perceiving function is more spontaneous and off the cuff (Blutner & Hochnadel 2010). Those who prefer judging are often those who enjoy making lists and checking things off as they accomplish them, while those who favor perceiving would rather see where the day takes them and see each day as full of possibilities for this reason.

The use of the MBTI assessment is useful in developing a greater sense of self-awareness by opening up an individual's eyes to their patterns of behavior and how their brain most frequently process the information that comes to them (Bower 2015). These patterns offer an insight into how an individual is perceived by others as well as how they participate in their relationships. This makes the MBTI a great tool for those individuals who could stand to benefit from understanding how they operate and interact with the people that they work with. It is inferred that a better sense of self and preferential tendencies broadens horizons to allow for new actions and behaviors.

In the field of athletic training, a greater sense of self awareness is important as the profession is based around interaction with athletes, coaches, athletic administration, and other members of the sports medicine team . Bowers (2015) also states that the MBTI can be used to deepen others-awareness by better understanding how the people around you differ in communication, leadership, and conflict resolution styles. This information makes the MBTI, or other personality assessments, even more applicable for those in fields that depend largely upon strong relationships with others, such as athletic training.

Despite the popularity of the MBTI assessment, there are many critics of it, both academic and otherwise (Moyle & Hackston, 2018). According to some academics such as Chamorro-Premuzic, T., Winsborough, D., Sherman, R. A., & Hogan, R. (2016), “In a world driven by accuracy, the Myers–Briggs would not be the most popular assessment tool” (Chamorro-Premuzic, Winsborough, Sherman, & Hogan, 2016, p. 635). The main argument found is that humans are more prone to traits and not necessarily types, thereby rejecting the rigidity of the MBTI’s 16 personality types as it overly simplifies personality. The defense of this is well put by Moyle & Hackston (2018): “Dividing

personalities into just 16 types is of course, a simplification of human nature. If the goal is to capture maximal variance and to predict behavior from the scores alone, then the MBTI is not the right assessment to use. It does, however, provide simple labels and useful rules of thumb to help people understand individual differences, without overwhelming them with too much information.” (Moyle & Hackston, 2018, pg. 509).

In a study conducted in 2002 by Capraro & Capraro, it was found that the MBTI Assessment provided reliable results. Only one dimension of their study, the thinking-feeling scale test-retest reliability, was below the accepted 0.8 mark which tends to be the cutoff for reliability (Capraro & Capraro, 2002). The other dimensions, extraversion-introversion, sensing-intuition, and judging-perceiving, were all above the 0.8 mark, illustrating test-retest reliability for those scales. Despite being a reliable test, because of the rigidity of the nature of the MBTI, it may not be the most appropriate tool to use when comparing personality to other factors, such as job performance, satisfaction, and fitness.

### **The Big Five Inventory**

Another incredibly popular assessment of personality is the Big Five Inventory (BFI). Unlike the MBTI, which describes specific personality types, the BFI gathers normative data to describe how often certain traits are demonstrated rather than complete personality types. While the MBTI describes how a person tends to interact with the world, the BFI describes 5 basic facets of personality and scores demonstrate how prevalent each facet is as compared to other people in the same sample. Because of this, the BFI is an incredibly popular assessment used in research as it gives comparisons

across the specific sample population and does not put people into 16 separate boxes like the MBTI.

The BFI was been created to describe the five broadest levels of human personality in a lexical way (John & Srivastava, 1999). Because of the breadth and brevity of the BFI, researchers gravitate toward it regularly when seeking a means to measure the personality of subjects. It has been researched across different cultures and languages and consistently demonstrates reliability and validity. It has been condensed down from a 100-trait analysis to a five trait analysis, and its five facets of personality describe much broader traits and states within each. Those five broader traits are: extraversion, agreeableness, conscientiousness, neuroticism, and openness.

In order to measure the five facets, many questionnaires have been created. They range from extensive to brief and the 44-item BFI, which was used in this study, was created as a means to efficiently assess prototype definitions of the Big Five facets without further assessing each facet (John & Srivastava, 1999). The questionnaire consists of short phrases that describe the adjectives within each trait, and the test taker is asked to rate each adjective on a Likert scale to determine how well the phrase describes them. There are eight to ten items for each of the facets and the entire BFI takes approximately five minutes to complete. This makes the BFI an ideal tool to use in this study, as brevity is of the essence with collecting greater participation numbers.

### **Myers-Briggs Type Indicator Applied**

There is a plethora of information regarding the Myers-Briggs Type Indicator (MBTI) assessment applied to career counseling and job placement. Much of the application of the MBTI can be found in business schools and programs, however, there

is also research of the MBTI assessment applied to the medical field and its allied professions.

According to Pinkney, the MBTI is an appropriate tool for the college student seeking career counseling supplements (Pinkney 1983). Many career counselors use the Strong-Campbell Interest Inventory (SCII) when consulting college aged student seeking career guidance as a means to suggest possible avenues that match that student's particular interests. However, the argument can be made that the SCII produces rigid answers and solutions to a problem that is seeking more of a means of getting to the answer than to the answer itself. These rigid answers and solutions may be quickly rejected by college aged students that have acquired reasonable skepticism and are more so seeking an array of appropriate choices rather than one correct "answer." This is where the Myers-Briggs Type Indicator (MBTI) assessment can come into use. For experienced and mature students, the MBTI's description of a person's interaction with the world may be a more appropriate means of determining which careers are best fit for an individual.

This particular article defines how the MBTI indicates four preferences for how an individual interacts with the world in which they live: the focus of interest, how information is gathered, how an individual involves themselves with information, and the deposition of this information. This aligns with the previous research described. Because the MBTI is focused on preference and not ability, it is perhaps more focused on an individual's enjoyment of a possible career rather than a competence or lack thereof. The SCII offers specific careers as the outcome whereas the MBTI encourages the integration of self-knowledge into the career planning process. Focusing on an individual's preference rather than ability is crucial with those students that have already chosen a career path. Any career



is more than just one archetype and a plethora of different settings emerge every day as the landscape of the world changes. This article outlines how the MBTI has been used in past practice to assist with career planning for college aged students who are perhaps more willing to discuss preferences rather than competencies.

Within the field of healthcare, some research has been conducted to analyze MBTI results and saturation of certain types within the field. It has been found that for healthcare executives specifically, there are greater numbers of those exhibiting preferences for thinking and judging, or TJ types. In business executives, there tends to be a preference for feeling over thinking as it is more people-oriented but in healthcare, executives tend to show preference for thinking as patient outcomes depend largely upon right and wrong decisions made in a timely manner. Furthermore, it was discovered that executives working in for-profit organizations showed greater preference toward intuition while those in not-for-profit organizations indicated a preference for sensing. No striking differences were found between male and female executives, indicating that personality preferences, rather than gender, were greater indicators of holding executive office (O'Connor, Shewchuk, & Raab 1992).

Within the field of athletic training, those that could be considered healthcare executives could be titled as Head Athletic Trainers, Sports Medicine Directors, and Athletic Directors. This specific setting in the National Collegiate Athletics Association (NCAA) is often seen as the most time intensive and stressful title as an athletic trainer working in intercollegiate athletics. Very few people hold this title in this capacity within athletic training. No current research has been done to determine whether TJ types are

more prevalent for those athletic trainers in these roles, or any other assessment of personality.

Research has been published regarding the MBTI and the field of therapeutic recreation, which is an allied health profession. In 2000, a study was published by Bongguk and Austin that attempted to study MBTI in therapeutic recreation students as they found a lack of research regarding MBTI in that field. It was established that people within the same occupational field, or similar occupational fields, show tendencies to exhibit similar personality traits. Having said that, therapeutic recreation is an allied health field much like athletic training and is a similar occupation. From this, it can be established that the findings of Bongguk and Austin relate to the research gaps of the MBTI in athletic training.

The results of this study illustrate the prevalence of both ESFJ and ENFP types in therapeutic recreation students. Both of these types show preference for extraversion and feeling. This information is useful as the authors also state that the MBTI is a useful tool for comparing personality within an occupation as well as without. And as noted previously, as therapeutic recreation and athletic training are both related as allied health professions, the results found in this study may prove to translate over to my study regarding personality in athletic training (Bongguk & Austin, 2000). This research in therapeutic recreation is of the utmost relevance to my study as it aimed to fill the research gap of the MBTI within the field. My aim is to fill the research gap of the MBTI within athletic training.

## **The Big Five Applied**

As previously discussed, the BFI is a valid, reliable, brief, and easily accessible means of determining the basic personality traits and how often or potently people express them. This makes the BFI an appropriate tool to use in any study seeking personality information.

Correlations between certain traits within the Big Five and supervisor ratings of job performance. In a 1993 study conducted by Barrick and Mount, ratings on the Big Five personality were compared against supervisor opinions of employee job performance in the United States Army. The sample population consisted of 146 trainees, mostly mid-level managers and first-line supervisors and they were asked to complete both a Big Five questionnaire and a brief questionnaire that measured perceived autonomy of their jobs. The results indicated that the facet of Conscientiousness had the highest validity among the five facets with extraversion exhibiting significant validity as well. These findings indicated that both conscientiousness and extraversion were indicative of job performance. This information is useful as it provides proof of the validity of at least two of the five facets of the Big Five.

Outside of athletic training, many studies have been conducted to assess BFI scores in relation to other assessment scores, such as the Maslach Burnout Inventory. In 2006, a Dutch study was conducted to determine the correlation between Big Five scores and burnout across a sample of volunteer counselors working with terminally ill patients. Participants included 75 females and 5 males with an average age of 54 years. Tests administered were the Five Factor Personality Inventory (FFPI), which consists of 100 questions regarding the Big Five traits, and the Maslach Burnout Inventory, the most

widely used assessment of burnout. Results indicated that neuroticism and extraversion were the most indicative facets of burnout. The data showed that higher scores of neuroticism was correlated to all three of the dimensions of burnout and lower scores of extraversion correlated to depersonalization. These scores were even more exaggerated when paired with an increased number of negative interactions with patients as opposed to fewer negative interactions.

These findings are of particular interest as the participants were healthcare providers and there was such strong evidence found for the facet of neuroticism. Neuroticism may be linked to decreased job satisfaction across all settings within athletic training and this study poses the notion that those individuals scoring high in neuroticism may not be suited for careers within healthcare, especially health care given to catastrophically ill or injured patients.

While there is currently no known research regarding the BFI and correlations to and within athletic training settings, there is current research regarding the BFI and burnout. The collection of research done in regards to burnout within athletic training specifically has given a foundation of knowledge regarding BFI personality traits within the field of athletic training and can be applied to the hypotheses of this study.

By definition, burnout is a phenomenon in which an individual experiences some combination of emotional exhaustion, depersonalization, and decreased sense of personal accomplishment (Eason, Mazerolle, Monsma, & Mensch 2015) in their line of work. Issues surrounding burnout and the overarching theme of job satisfaction or dissatisfaction have been noted in healthcare professions such as physical therapy (Campo, Weiser, & Koenig, 2009) and nursing (Geiger-Brown, Trinkoff, Nielsen,

Lirtmunlikaporn, Brady & Vasquez, 2004). Many athletic trainers also report feelings of burnout both early on and throughout their careers, especially those athletic trainers working in NCAA Division 1 settings in which more time is demanded of them (Mazerolle, Monsma, Dixon, & Mensch, 2012). Because of this prevalence of burnout within the field, research has been conducted to examine why and how burnout has become such a relevant and present component of athletic training.

Stakeholders of the athletic training profession have been striving to understand job satisfaction and attrition rates within the field. Specifically female athletic trainers demonstrate low attrition rates (Goodman, Mensch, Jay, French, Mitchell, Fritz 2010). In relation to that, research has been conducted to analyze burnout within the profession of athletic training as it related to attrition rates. Signs of burnout have been seen as early on in athletic training careers as graduate assistants (Mazzerole, Monsma, Dixon & Mensch, 2012) and undergraduate students (Mazzerole & Pagnotta, 2011).

Undergraduate athletic training students are placed within clinical rotations as a means of gaining hands-on experience. This clinical immersion exposes students to the many facets of the profession including time demands. Clinical rotations for undergraduate students are most often within intercollegiate athletics at their educational institution and can also include placements within secondary schools, clinics, or hospitals. Working in the intercollegiate setting is often an undergraduate student's first glimpse into being an athletic trainer.

Experiences as a clinical student assist in building a skillset as a healthcare provider and allow the student to create relationships with clinical instructors, athletes, and coaches as they learn how to conduct themselves in the workplace. Undergraduate

students are called to juggle this clinical responsibility with a rigorous course load, possible extracurricular activities that promote professional learning and networking, and possibly a job among other responsibilities. These demands placed upon clinical students can be strenuous. A long list of responsibilities and a perceived lack of time prove to be sources of stress and burnout for the undergraduate athletic training student even before they have become certified within the field (Mazzerole & Pagnotta 2011).

For graduate assistant athletic trainers, especially those that work in the Division I setting within the NCAA, sudden increase in time demands and pressure from within organizations has been found to put a strain on athletic trainers and cause this burnout. However, it has been noted, that settings have widely expanded within athletic training throughout both public and private sectors, and no athletic trainer is safe from the risk of burnout, specifically graduate assistants as the large increase in hours from the undergraduate to the graduate level (Mazzerole et al, 2012).

This information poses a need for both risk mitigation within settings to reduce rates of burnout, and the need to place appropriate individuals in their preferred, most appropriate settings so as to naturally reduce burnout. There is research to suggest that sustained levels of burnout within athletic training leads to eventually leaving the profession, rendering a degree in athletic training useless and the time and money spent to obtain that degree decrease in value. A study conducted in 2011 by Terranova and Henning illustrated that athletic trainers within the NCAA at all divisional levels experienced some level of burnout and that neither role title nor level of competition had relation to intention to leave the field. What was correlated to intention to leave were the

time demands that were not being compensated for and the absence of a flexible schedule to allow for more personal time outside of work (Terranova & Henning, 2011).

Athletic trainers that have been certified for a number of years continue to exhibit signs of burnout. In a study conducted by Kania, Meyer, and Ebersole, 206 athletic trainers employed within the NCAA were surveyed and results indicated positive correlations between increased stress and increased levels of burnout. Interestingly, this study revealed that personal characteristics, or trait preferences, had a profound impact on job satisfaction for these athletic trainers. Personal characteristics predicted 45.5% of the variance in emotional exhaustion, 21.5% of the variance in depersonalization, and 24.8% of the variance in personal accomplishment. The participants in this study ranged in age from 21 to 70 and distribution between males and females was almost equal (Kania, Meyer, & Ebersole, 2009). These findings, therefore, pose a fairly good reflection of the overall population of athletic trainers support a need to focus on the personal characteristics of athletic trainers and its impact on job satisfaction.

A study by Eason, Mazerolle, Monsma & Mensch in 2015 focuses on the Big Five Personality Inventory and job satisfaction. Of the 202 ATs that replied to the survey via NATA email distribution, results indicated that women showed higher levels of neuroticism than men, extraversion and conscientiousness showed a weak positive correlation with job satisfaction, a moderate positive correlation was found between agreeableness and job satisfaction, and a moderate negative correlation was found between neuroticism and job satisfaction. The authors concluded that this study indicates that program directors of athletic training education programs may better guide athletic

training students through their education with knowledge regarding their personalities (Eason, Mazerolle, Monsma & Mensch, 2015).

In a study published a year later by Barrett, Eason, Lazar, and Mazerolle, of 189 collegiate athletic trainers surveyed, those that scored high within extraversion on the Big Five Personality Inventory assessment did not indicate high levels of burnout. The only strong correlation found in this study was found between those scoring high in neuroticism and scoring high in burnout as well (Barrett, Eason, Lazar & Mazerolle, 2016).

The results of these two studies indicate that an inference could be made that extraversion is a preference that works well within collegiate athletic training settings and can therefore be applied to the hypothesis of this study. The results also indicate that undergraduate programs may benefit their students with better knowledge of their personality types.

### **The Job Satisfaction Survey**

In order to best assess job satisfaction, using tried and true methods are the best route. The Job Satisfaction Survey (JSS) created by Spector (1985) is a commonly used means of gauging human service employee satisfaction. The JSS has been translated to 25 different languages and has been applied to innumerable studies regarding job satisfaction and burnout.

The JSS consists of 36 statements that are ranked on a likert scale from 1, disagree very much, to 6, agree very much. The questions are centered around nine facets of job satisfaction. Those facets are pay, promotion, supervision, fringe benefits, contingent awards, operating procedures, coworkers, nature of work, and communication



(Spector, 1985). For this study, particular interest is in the nature of work facet, scored by four statements on the JSS. The four statements are: “I sometimes feel my job is meaningless,” “I like doing the things I do at work,” “I feel a sense of pride in doing my job,” and “My job is enjoyable.” These four statements will be used in the survey of this study.

Testing job satisfaction will be of importance in this study because of the confounding factor that it may present while examining personality traits and settings. Athletic trainers may be in a certain setting because that setting promotes their needs and wants as a parent or a spouse. Perhaps an athletic trainer is in a job that they are not satisfied with but stay due to the compensation and benefits they receive being employed there. Understanding whether or not an athletic trainer is satisfied with their setting and their role within that setting is integral in understanding if personality traits are important when understanding why athletic trainers work in the positions that they do.

## **CHAPTER 3**

### **METHODS**

#### **Introduction**

Athletic training is an allied health profession that has expanded rapidly over the past several decades. What was once a male dominated profession has become majority comprised of females, patient populations are no longer restricted to athletes, and healthcare professionals recognize the importance of athletic trainers and their role in more comprehensive patient care. As athletic training education moves to the professional masters level, future athletic training students will be required to spend more time and money on their education without the guarantee of additional or supplemental information to determine where they may fit best within the ever-growing field.

Very little research has been conducted regarding personality assessments and athletic training. This study aimed to begin to fill this gap in the literature by using a widely utilized personality assessment, the Big Five Inventory (BFI), and a supplemental demographic survey to determine local norms and possible correlations. This information may assist in discovering whether certain personality traits show more prominently in certain settings or roles and which significant differences are found.

#### **Review of the Purpose of Study**

The purpose of this research was to determine local norms of the five traits of the BFI across the settings of athletic training and roles within those settings to determine if there appears to be significant differences of BFI results across job settings and roles, as well as correlations between job satisfaction and BFI results. Knowledge in these areas

can lead to a better understanding of how potentially personality traits may affect where an athletic trainer works and how satisfied they are working in that setting and role. This can help guide clinical education by matching students with settings in which they may be best suited and can serve as a guide for those athletic trainers looking to work in different settings or roles and are unsure of where they may flourish.

### **Research Questions**

The following research questions, null hypotheses, and alternative hypotheses were used to guide this study.

**RQ<sub>1</sub>:** Are there significant differences between BFI personality traits and employment settings within athletic training?

- **H<sub>1</sub>:** Athletic trainers working in NCAA D1 settings will score highest on the BFI in Extraversion and Neuroticism.
- **H<sub>01</sub>:** There will be no significant differences between BFI personality traits and employment settings.

**RQ<sub>2</sub>:** Are there significant differences between BFI personality traits and employment roles?

- **H<sub>2</sub>:** Those athletic trainers in management roles will score relatively higher on the BFI in Extraversion.
- **H<sub>02</sub>:** There will be no significant differences between BFI personality traits and roles.

**RQ<sub>3</sub>:** Are there significant correlations between BFI personality traits and JSS scores?

- **H<sub>3</sub>:** Athletic trainers in any setting or role who rate Neuroticism relatively higher on the BFI will also demonstrate lower rates of satisfaction as scored on the JSS questions.
- **H<sub>03</sub>:** There will be no significant correlations between BFI results and JSS results.

## **Subjects**

This study aimed to include certified and licensed athletic trainers, actively working in the field, who are members of the National Athletic Trainers' Association (NATA). The largest number of participants ranging from all ages and all settings are desired to gauge the most accurate correlations between the data points collected. Subjects were obtained by a stratified random sampling of 1,000 NATA members. Currently, the NATA describes ten settings within the field of athletic training: college/university, higher education, secondary schools, , professional sports, healthcare administration and rehabilitation, military, occupational health, performing arts, physician practice, and public safety. Subjects were sought from all of these settings. The survey was also sent out to the primary investigator's personal professional network to increase the number of participants in the study.

## **Study Size**

A statistical priori power analysis was run to determine the optimal sample size needed to optimize the significance of the results of the study. For a power of .95 and an alpha level of 0.05 used to determine level of significance, a minimum of 120 participants was recommended to achieve a large effect size (0.95).

**Exclusion criteria**

Non-certified student members of the NATA will not be invited to participate as this study aims to target employed and actively practicing athletic trainers. Additionally, emeritus status athletic trainers are not included as the study is not applicable to those athletic trainers no longer practicing.

**Inclusion criteria**

Participants sought for this study included members of the NATA in all 10 Districts working in the following settings: college/university, secondary schools, clinics/hospitals, non-traditional, occupational. The study was distributed electronically by the NATA Research Survey Service for distribution to the 1,000 data points guaranteed by the NATA.

**Instrumentation**

Qualtrics was used to create this survey per the NATA Research Survey Service. This survey was made up of two separate parts: the Big Five Inventory (BFI) (Goldberg 1993) and a short demographic survey to follow, which included a shortened and modified version of the Job Satisfaction Survey, or JSS (Spector 1985). The official version of The Big Five Inventory; proven valid and reliable (John & Srivastava 1999), was used in this study. The demographic questions were constructed by the researcher and have been reviewed for content validity by professionals in both the field of athletic training and the field of psychology in sport. The survey took approximately 15 minutes

to complete 59 questions. Once completed, the results were analyzed using Microsoft Excel 2016 and IBM SPSS Version 24.0 (IBM Corporation, Somers, NY, USA) where that data was divided into independent and dependent variables as listed below:

### **Independent Variables**

Independent variables in this study are as follows:

1. Current occupational setting
2. Current role

### **Dependent Variables**

Dependent variables in this study are as follows:

1. Extraversion scores
2. Conscientiousness scores
3. Agreeableness scores
4. Neuroticism scores
5. Openness scores
6. Job satisfaction score

### **Data Collection Procedures**

After approval of the Barry University Institutional Review Board, the survey was sent out via NATA Research Survey Service. The initial email was sent on April 2, 2019 and was open for six weeks, closing on May 14, 2019. One reminder email was sent each week after the initial email to capture those target subjects who had not yet participated. The email addresses of the recruited participants remained blinded to the researcher; the

NATA does not permit access to their email distribution list. The body of the email contained a detailed message defining the purpose and plan for the research being conducted. The email also contained the message of informed consent and indicated how clicking on the survey link and submitting a completed survey provides informed consent for the researcher to use the participant's responses for the purpose of this study (Appendix A). The survey was constructed via Qualtrics; the link to the Qualtrics survey was provided at the end of the introductory email. The resulting data was protected by both a password protected computer and a password protected Qualtrics account. The survey itself was anonymous and no email addresses or IP addresses were collected in order to keep participants unidentifiable. Only the primary investigator and the NATA Research Survey Service personnel have access to the password protected results.

### **Data Analysis**

Once data collection was closed, the data was exported to an excel sheet, cleaned, and organized. This cleaned, organized data was then imported onto SPSS where many different analyses were made: BFI local norms, multiple ANOVAs to determine significant differences across settings, multiple ANOVAs to determine significant differences of BFI traits across roles, and Pearson correlations between BFI scores and Job Satisfaction Survey (JSS) scores.

BFI results were determined using the grading scale provided with the survey questions which is as follows:

BFI scale scoring ("R" denotes reverse-scored items)

Extraversion: 1, 6R, 11, 16, 21R, 36, 31R, 36

Agreeableness: 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42

Conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R

Neuroticism: 4, 9R, 14, 19, 24R, 29, 34R, 39

Openness: 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44

These scores are summations, meaning each participant had five scores from the BFI, one for each of the traits. Additionally, job satisfaction scores are also scored as a summation of the four questions posed. Each participant therefore had six corresponding summation scores: extraversion, agreeableness, conscientiousness, neuroticism, openness, and JSS. These scores were analyzed to answer the three aforementioned research questions



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EMPLOYMENT SATISFACTION AMONG ATHLETIC TRAINERS: A STUDY OF  
THE RELATIONSHIP OF PERSONALITY TRAITS AND EMPLOYMENT SETTING

by

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EMPLOYMENT SATISFACTION AMONG ATHLETIC TRAINERS: A STUDY OF  
THE RELATIONSHIP OF PERSONALITY TRAITS AND EMPLOYMENT SETTING

**ABSTRACT**

**Context:** Personality differences among athletic trainers have been investigated in regards to both burnout and job satisfaction, frequently utilizing the Big Five Personality Inventory as a tool to distinguish those differences. While this information is useful in determining differences among a population of unsatisfied or burned out athletic trainers, there is a lack of research regarding differences in personality traits between settings and roles. **Objective:** The objective of this research was to determine significant differences between the Big Five Inventory (BFI) and both job settings and roles within the field of athletic training while also determining correlations between BFI results and reported job satisfaction. **Design:** Survey. **Setting:** This research was conducted through a survey via the Qualtrics website. **Patients or Other Participants:** This survey was sent to athletic trainers across all settings distinguished by the National Athletic Trainers' Association: college/university, higher education, secondary schools, professional sports, healthcare administration and rehabilitation, military, occupational health, performing arts, physician practice, and public safety. The NATA Research Survey Service was used to construct and distribute the survey. **Instrumentation:** Data was collected using a Web-based survey instrument consisting of 3 sections: (1) The Big Five Personality Inventory (BFI), (2) The Job Satisfaction Survey (JSS), nature of work facet, and (3) demographics.

**Main Outcome Measure(s):** Multiple univariate analyses (ANOVAs) were run to determine significant differences between BFI results and demographic information. Post hoc independent t-tests were used to distinguish significant differences in BFI results between job settings. Pearson Correlations were run to determine relationships between BFI results and JSS results. **Key Words:** Personality, Big Five Inventory (BFI), Job Satisfaction.

**Introduction:**

The Big Five Inventory (BFI) is one of the most widely recognized and utilized personality assessment in literature. The BFI assesses the strength of five personality facets: extraversion, agreeableness, conscientiousness, neuroticism, and openness. While the BFI does not determine a specific personality type like the Myers-Briggs Type Indicator does (Amato & Amato 2005), it does provide a standardized means of determining local norms throughout a testing population (John & Srivastava, 1999).

Defined by the National Athletic Trainers' Association (NATA), the traditional settings within the field of athletic training are as follows: College/University, Higher Education, Secondary Schools, and Professional Sports. The emerging settings within athletic training are: Healthcare Administration/Rehabilitation, Military, Occupational Health, Performing Arts, Physician Practice, and Public Safety. There is no known literature that explores the BFI as it applies to all of these settings as defined by the NATA, nor is there known literature that explores the BFI as it applies to athletic trainers' roles within these settings. In the previous research, it is well-documented that athletic trainers experience high level of burnout and there is a link between burnout and job satisfaction (Barrett et al., 2016). In an effort to explain this burnout and who is more prone to it, researchers have sought to find if personal characteristics were predictors and found that this was indeed the case (Kania et al., 2009). There has also been evidence to show that personal characteristics, as defined by the BFI, are correlated with job satisfaction (Eason et al., 2015). The aim of this research was to distinguish whether or



not the BFI facets demonstrated any significant differences across athletic settings and roles, and whether or not these facets were correlated to job satisfaction.

**Results:**

*Research Question 1: Are there significant differences between BFI personality traits and employment settings within athletic training?*

Participants were grouped into current employment settings, first general settings, and then Division I versus other settings in order to address the hypothesis that DI ATs would display the highest scores for both extraversion and neuroticism. After cleaning the data and removing outliers, the “general employment settings” were: collegiate, education, secondary school, and non-traditional. The collegiate category consisted of National Collegiate Athletics Association (NCAA) Division I, NCAA Division II, NCAA Division III, National Association of Intercollegiate Athletics (NAIA), and Junior College settings. The secondary school setting consisted of both public and private high schools. Professional sports were omitted as a setting as there were only four total participants. The non-traditional category was a conglomerate of the participants that marked their current employment setting as healthcare administration/rehabilitation, military, occupational health, performing arts, physician practice, and public safety. Multiple univariate analyses (ANOVAs) were made to determine the differences in the values for each BFI trait between each setting. Descriptive comparisons were made between each trait within each of these general settings and are listed in Table 1. The ANOVA revealed that there were significant differences in Neuroticism between general settings,  $F(2,138)=3.165$ ,  $p=0.45$ . A follow-up independent t-test revealed that the Secondary School setting scored significantly lower in Neuroticism than the Collegiate setting,  $t(115)=-2.08$ ,  $p=.040$ . There were no significant differences between Collegiate and Non-Traditional settings.

Table 1

*Big Five Inventory Results Across General Athletic Training Settings (RQ1, multiple univariate analyses)*

	<u>Extraversio</u>	<u>Agreeablenes</u>	<u>Conscientiousnes</u>	<u>Neuroticis</u>	<u>Opennes</u>
	<u>n</u>	<u>s</u>	<u>s</u>	<u>m</u>	<u>s</u>
Collegiate (n=62)	28.00 (6.942)	28.65 (3.599)	37.21 (4.235)	22.42 (6.240)	33.58 (5.275)
Education (n=9)	27.00 (6.764)		36.67 (4.873)		35.56 (5.223)
Secondary School (n=55)	26.11 (6.205)	28.55 (3.120)	37.38 (4.466)	20.02 (5.817)	34.25 (5.215)
Non- Traditiona l (n=24)	26.71 (5.714)	29.46 (2.750)	38.50 (3.563)	22.79 (4.374)	35.58 (5.090)

*Note.* The values listed are the mean scores of the summations for each of the BFI facets.

The parentheses indicate the standard deviations.

In order to address the hypothesis that NCAA DI ATs would show higher extraversion and neuroticism scores than other settings, groups were reorganized. The groups became DI, DII, DIII/NAIA/JuCo, Secondary School, and Non-Traditional settings. The BFI scores of these five settings were compared, as seen in Table 2. It was hypothesized that DI ATs would show the highest scores for extraversion and neuroticism. However, though not significant, DI ATs showed the lowest scores for extraversion and the second lowest in neuroticism as compared to the other settings. In comparing extraversion scores, significant differences were found between settings,  $F(4,136)=2.53$ ,  $p=0.043$ . Follow up independent t-tests revealed that DII ATs scored significantly higher compared to DI ATs,  $t(38)=2.64$ ,  $p=0.012$ ; DII ATs scored

significantly higher compared to Secondary School ATs,  $t(67)=2.91$ ,  $p=0.005$ ; DII ATs scored significantly higher compared to Non-Traditional setting ATs,  $t(36)=2.43$ ,  $p=0.020$ .

Table 2

*Big Five Inventory Results for DI vs Other Settings (RQ1, multiple univariate analyses)*

	<u>Extraversion</u>	<u>Agreeableness</u>	<u>Conscientiousness</u>	<u>Neuroticism</u>	<u>Openness</u>
DI (n=26)	25.81 (6.693)	28.69 (4.116)	37.69 (4.823)	21.81 (6.007)	33.65 (5.403)
DII (n=14)	31.50 (6.124)	28.76 (3.577)	36.43 (4.380)	23.21 (7.170)	33.43 (4.620)
DIII/NAIA/JuCo (n=22)	28.36 (7.014)	28.59 (3.217)	37.09 (3.584)	22.45 (7.056)	33.59 (5.729)
Secondary School (n=55)	26.11 (6.205)	28.55 (3.120)	37.25 (4.575)	19.89 (5.980)	34.25 (5.215)
Non-Traditional (n=24)	26.71 (5.714)	29.46 (2.750)	38.50 (3.563)	22.58 (4.605)	35.58 (5.090)

*Note.* The values listed are the mean scores of the summations for each of the BFI facets.

The parentheses indicate the standard deviations.

*Research Question 2: Are there significant differences between BFI personality traits and employment roles?*

Participants were grouped into general current roles and five one-way ANOVA analyses were made to determine the differences between values for each BFI trait between each role. After cleaning the data and removing outliers, the “general roles” were: Head athletic trainer, Association/Assistant/Graduate Assistant/Intern/Fellow athletic trainer, Program Directors and Clinical Education Coordinators/Educators, and

Outreach/PRN athletic trainers. Descriptive comparisons were made between each trait within each of these general roles. There were no significant differences found between BFI scores across these general roles. See Table 3.

Table 3

*Big Five Inventory Results Across Athletic Training Roles (RQ2, multiple univariate analyses)*

	<u>Extraversio</u> <u>n</u>	<u>Agreeablene</u> <u>ss</u>	<u>Conscientiousne</u> <u>ss</u>	<u>Neuroticis</u> <u>m</u>	<u>Opennes</u> <u>s</u>
Head (n=57)	26.84 (5.934)	28.33 (3.318)	37.25 (4.223)	20.40 (6.112)	33.68 (4.830)
Associate/ Assitant/ GA/ Intern/ Fellow (n=67)	27.18 (7.090)	29.25 (3.399)	37.06 (4.221)	22.24 (6.291)	34.43 (5.641)
Educator (n=16)	28.06 (6.884)	28.50 (2.309)	37.38 (4.674)	22.75 (1.732)	35.31 (4.483)
Outreach/PR N (n=12)	24.92 (6.022)	29.92 (2.843)	40.42 (2.712)	19.58 (2.539)	34.50 (5.551)

*Note.* The values listed are the mean scores of the summations for each of the BFI facets.

The parentheses indicate the standard deviations.

In order to address the hypothesis that ATs within management roles will score higher in extraversion, the participants were reorganized and regrouped into only two groups: management roles which include Head ATs and Program Directors, and all those who do not serve in these roles. The results for their BFI scores are listed in Table 4. T-tests showed that they exist no significant differences between BFI results when comparing management and non-management positions.

Table 4

*Big Five Inventory Results for Management vs. Non-Management Roles (RQ2, multiple univariate analyses)*

	<u>Extraversio</u>	<u>Agreeablenes</u>	<u>Conscientiousne</u>	<u>Neuroticis</u>	<u>Opennes</u>
	<u>n</u>	<u>s</u>	<u>ss</u>	<u>m</u>	<u>s</u>
Manageme nt (n=63)	27.00 (5.938)	28.32 (3.217)	37.33 (4.154)	20.63 (6.084)	34.05 (5.059)
Non- Manageme nt (n=91)	26.92 (6.903)	29.13 (3.380)	37.45 (4.367)	21.75 (6.091)	34.58 (5.461)

*Note.* The values listed are the mean scores of the summations for each of the BFI facets.

The parentheses indicate the standard deviations.

*Research Question 3: Are there significant correlations between BFI personality traits and JSS scores?*

Pearson correlations were made to determine if there were relationships between the two dependent variables: BFI personality facets and JSS scores. Table 5 describes the Pearson correlations between all six of these variables.

Only two of the BFI facets showed significant correlations with job satisfaction. There was a weak negative correlation found between job satisfaction and neuroticism scores among all participants in the study regardless of setting and role. This result agrees with the hypothesis that those ATs scoring high in Neuroticism will also score lower on the JSS. There was also a weak positive correlation found between job satisfaction and extraversion scores among all participants in the study regardless of setting and role. There were no significant correlations between JSS scores and Agreeableness, Conscientiousness, and Openness.

Table 5

*Big Five Inventory Results Compared to Job Satisfaction Survey Results (RQ3, Pearson correlations)*

		<u>Neuroticism</u>	<u>Extraversion</u>	<u>Agreeableness</u>	<u>Conscientiousness</u>	<u>Openness</u>
		<u>Total</u>	<u>Total</u>	<u>Total</u>	<u>Total</u>	<u>Total</u>
JSS	N	153	153	153	153	153
Total						
	Pearson Correlation	-.182*	.284**	.062	.127	.122
	Sig. (2-tailed)	.024	.000	.444	.116	.133

*Notes.* Neuroticism  $R^2=0.033$  ( $p=0.024$ ), Extraversion  $R^2=0.080$  ( $p=0.001$ )

## Discussion

The field of athletic training is continuing to evolve and grow. As prospective athletic trainers face the new requirement to obtain a professional master's degree to practice, obtaining a better understanding of personality characteristics and their correlation with workplace satisfaction is timely.

Perhaps the most interesting information found in this study was the correlation between the BFI and JSS "nature of work" facet that was used. The results of this study demonstrated that those athletic trainers that are more extraverted, regardless of their setting or role, report weak, positive correlation to higher levels of job satisfaction. In simpler terms, this investigation found that the more extraverted an athletic trainer rated

themselves to be, the more satisfied they rated themselves to be with their employment. This agrees with the results of previous studies (Eason et al 2015) and adds more depth to the hypothesis that higher extraversion scores are correlated to higher job satisfaction scores. However, this finding raises the question: which came first? Is it nature or nurture that makes an AT more extraverted? The results of this study cannot express whether those ATs who are more satisfied with their job tend to become more extraverted or if those ATs who are more extraverted tend to then be more satisfied with their job.

It is important here to note that the JSS “nature of work” facet used in the survey of this study is comprised of intrinsic, introspective focused questions. A study in 2011 by Terranova & Henning found that the JSS subscale “nature of work” was the greatest predictor of an employee’s intention to leave and because of this finding, it was the facet included in this study (Terranova & Henning 2011). Those questions in the “nature of work” facet include “I sometimes feel my job is meaningless” and “I like the things I do at work.” These questions help to focus on job satisfaction as an internal, “nature” factor and helps us determine that the responses to the JSS questions are intrinsic to the participants and not heavily affected by extrinsic, or “nurture” factors such as co-workers, job resources, and benefits. Whether or not an AT enjoys working with their coworkers, that should not affect how they answer the “I like the things I do at work” question. Because of this, we can anticipate that the JSS results are more intrinsically related to the BFI results and not affected by confounding, extrinsic factors.

Those individuals who scored the highest in extraversion in this study were in the NCAA DII group and because of this information, it may be inferred that those athletic trainers who work in the DII setting may report higher levels of job satisfaction. This is



useful for athletic trainers that rate extraversion higher than their peers as it opens the door to explore whether the DII setting is the best match for them. Whether an AT is already in the DII setting, or in a different setting and seeking new employment or experiencing low levels of job satisfaction, the results from this study indicate that there is an indirect link between the DII setting and increased levels of job satisfaction. Additionally, this information could help inform Clinical Education Coordinators in their placement of more extraverted students; if there is an opportunity to place these students in the DII setting, they may be the best suited to gain their clinical experience there. Students spending time in clinical sites that are better suited for them may be better suited to practice athletic training once they've obtained their degree and certification.

Conversely, this study found that the more neurotic an athletic trainer reported themselves to be, the less satisfied they reported themselves to be with their work. Specifically speaking, a weak, negative correlation was found between Neuroticism and job satisfaction. These findings are similar to the results found in a previous study by Eason (2015) which found a moderate, negative correlation between the two. Applicability of this information lies more internally than it does externally. While neuroticism is only one facet of personality, these results indicate that the effects of it are so potent that high neurotic norms can decrease reported job satisfaction regardless of the individual's job setting or role. In similar studies that investigate burnout in athletic trainers, high norms of neuroticism have also been correlated with higher reported incidences of burnout (Barrett et al, 2016). In similar studies that investigate burnout in healthcare professionals, similar results were found that showed correlation between neuroticism and all three facets of burnout (Bakker, Van Der Zee, Lewig & Dollard

2006). By definition, burnout is a phenomenon in which an individual experiences some combination of emotional exhaustion, depersonalization, and decreased sense of personal accomplishment (Eason, Mazerolle, Monsma, & Mensch 2015) in their line of work. Burnout has become much more prevalent in the field of athletic training and has been credited to lower attrition rates and decreases in reported job satisfaction (Goodman, Mensch, Jay, French, Mitchell, Fritz 2010). The results of this current study add to the theory that neuroticism may be the root cause of both burnout and decreases in job satisfaction. Further research can be done to strengthen this connection.

The applicability of this information to current athletic trainers could not be more timely. Those ATs that rate higher on neuroticism than their peers may come to understand that their perceived job satisfaction level may be more attributable to internal factors than external factors, such as employment resources and job environment. However, as stated above, these results cannot confirm whether nature or nurture is more responsible for differences in personality. Future research should focus on this indirect link between JSS scores and settings to determine if there are significant differences.

It was hypothesized that ATs in management roles would demonstrate higher levels of extraversion as compared to their subordinates. Previous studies have found that healthcare professionals demonstrate high levels of extraversion, and even higher levels of thinking-feeling types, which can be linked to the BFI facet of conscientiousness (O'Connor, Shewchuk, & Raab 1992). Despite the previous research demonstrating differences in healthcare professionals with different roles, the results of this current study did not find any significant differences among different general roles or when comparing management and non-management roles. This is applicable to athletic trainers

as it indicates that how an individual rates themselves on the BFI compared to other ATs, there may not be difference in rank or role when looking at personality alone. Put simply, if a student wishes to be a Head Athletic Trainer in their future career, it will not be their personality that dictates whether or not that is a possibility.

The results indicating that there are no significant differences in personality across roles of employment are interesting in that they may suggest that work environment and experiences, which are extrinsic, do not affect personality differences in a significant way. As discussed with the differences across job settings, the results of this study cannot determine whether personality differences are more determined by intrinsic or extrinsic factors, this finding may lead to the belief that differences in personality within the same peer group may be attributed more to intrinsic rather than extrinsic factors.

Some of the data collected in this study was not analyzed, namely demographic data. The researcher was interested in collecting this data by chance there was an impact of these characteristics on the results. However, for the purpose of addressing the research questions of this study, the researcher chose not to use this data. This study could be replicated with the same survey to address the different research questions brought up in this Discussion. Analysis of this same data could be used to determine significant differences between employment roles and settings in job satisfaction scores, significant differences between BFI results and age groups, and significant differences between JSS results and age groups.

In future research, more time and more participants are necessary in increasing the validity of these results and determining more significant differences. Despite some

limitations in this study, the results of this study are both significant and relevant, and this study can serve as a platform for future research dedicated to analyzing personality facets within athletic training settings and roles.

### **Conclusions:**

The findings of this study suggest several new pieces of information while agreeing with many previous research studies. There appeared to be significant differences between extraversion and job settings and both extraversion and neuroticism and job satisfaction. No significant differences were found in personality facets between employment roles.

According to the data found in this study, across general settings of athletic training there exists a significantly lower mean Neuroticism score for Secondary School ATs as compared to both Collegiate and Non-Traditional setting ATs. When comparing Collegiate, Secondary School, and Non-Traditional setting ATs, the results indicate that DII ATs report a significantly higher extraversion score. Significant correlations were found in regards to the JSS summation score and both Neuroticism and Extraversion: results indicate a weak, negative correlation between JSS and Neuroticism scores and a weak, positive correlation between JSS and Extraversion scores.

All of the results from this study indicate that there is a link between personality facets and both athletic training job settings and job satisfaction. Further research is necessary in building upon these results and giving more direction to future athletic training students and athletic trainers seeking new job settings. This study illustrates the relevance of personality as it relates to the field of athletic training.

## APPENDIX A

# Barry University Cover Letter

Dear Research Participant:

Your participation in a research project is requested. The title of the study is “Employment Satisfaction Among Athletic Trainers: A Study of the Relationship Between Personality Traits and Employment Settings.” The research is being conducted by Marnie Hawes, a graduate student in the Sport and Exercise Science Department at Barry University, and it is seeking information that will be useful in the field of athletic training. The aims of the research are to examine The Big Five Inventory and job satisfaction. In accordance with these aims, the following procedure will be used: A questionnaire comprised of the Big Five Inventory, a component of the Job Satisfaction Survey, and demographic questions follow this letter. I anticipate the number of participants to be 5,000.

If you decide to participate in this research, you will be asked to complete the survey to the best of your ability. The questionnaire is estimated to take no more than 20 minutes to complete. The data will only be accessible by the primary investigator and the research committee. It will be kept for 5 years following the study’s completion.

Your consent to be a research participant is strictly voluntary and should you decline to participate or should you choose to drop out at any time during the study, there will be no adverse effects.

There is no risk involved with your participation in this study. You will not be asked for personally identifying information, the results from the study will only be accessible by the researcher on a password protected account and computer, and you may exit the survey at any time for any reason without penalty. There are no direct benefits to you for participating in this study; however, your participation will contribute to research in the area of personality and job satisfaction within the field of athletic training which may benefit future athletic training education programs.

As a research participant, information you provide is anonymous, that is, no names or other identifiers will be collected. Qualtrics allows researchers to suppress the delivery of IP addresses during the downloading of data, and in this study no IP address will be delivered to the researcher. However, Qualtrics does collect IP addresses for its own purposes. If you have concerns about this you should review the privacy policy of Qualtrics before you begin.

By completing and submitting this electronic survey you are acknowledging that you are at least 18-years-old, a member of the National Athletic Trainers’ Association, not a student or emeritus status member, and that you voluntarily agree to participate in the study.

If you have any questions or concerns regarding the study or your participation in the study, you may contact me, Marnie Hawes, by email at [mhawes@barry.edu](mailto:mhawes@barry.edu) or my faculty sponsor, Dr. Meredith Parry, by email at [mparry@barry.edu](mailto:mparry@barry.edu). You may also contact the

Institutional Review Board point of contact, Jasmine Trana, by phone at (305) 899-3020  
or by email at [jtrana@barry.edu](mailto:jtrana@barry.edu)

Thank you for your participation.

Sincerely,

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## APPENDIX B

### Survey

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are a person who likes to spend time with others? Please select the answer choice that best indicates the extent to which you agree or disagree with that statement.

1=Disagree strongly, 2=Disagree a little, 3=Neither agree nor disagree, 4=Agree a little, 5=Agree strongly.

I see myself as someone who:

1. Is talkative
2. Tends to find fault with others
3. Does a thorough job
4. Is depressed, blue
5. Is original, comes up with new ideas
6. Is reserved
7. Is helpful and unselfish with others
8. Can be somewhat careless
9. Is relaxed, handles stress well
10. Is curious about many different things
11. Is full of energy
12. Starts quarrels with others
13. Is a reliable worker
14. Can be tense
15. Is ingenious, a deep thinker
16. Generates a lot of enthusiasm
17. Has a forgiving nature
18. Tends to be disorganized
19. Worries a lot
20. Has an active imagination
21. Tends to be quiet
22. Is generally trusting
23. Tends to be lazy
24. Is emotionally stable, not easily upset
25. Is inventive
26. Has an assertive personality
27. Can be cold and aloof
28. Perseveres until the task is finished
29. Can be moody

30. Values artistic, aesthetic experiences
31. Is sometimes shy, inhibited
32. Is considerate and kind to almost everyone
33. Does things efficiently
34. Remains calm in tense situations
35. Prefers work that is routine
36. Is outgoing, sociable
37. Is sometimes rude to others
38. Makes plans and follows through with them
39. Gets nervous easily
40. Likes to reflect, play with ideas
41. Has few artistic interests
42. Likes to cooperate with others
43. Is easily distracted
44. Is sophisticated in art, music, or literature

Please select the answers that best apply:

1. Male or Female
2. Relationship Status:
  - a. Single
  - b. Married
3. Do you have children?
  - a. Yes
  - b. No
4. What is your highest level of education?
  - a. Bachelor's degree
  - b. Master's degree
  - c. Doctorate (e.g., PhD, EdD, DAT, DPT, etc.) degree
5. Identify the setting you currently work as a certified Athletic Trainer:
  - a. College/University
    1. Division 1
    2. Division 2
    3. Division 3
    4. NAIA/Junior College
  - b. Higher Education
  - c. Secondary Schools
    1. Public
    2. Private
  - d. Professional Sports



1. NFL
  2. NHL
  3. MLB
  4. NBA
  5. Other
- e. Healthcare Administration/Rehabilitation
  - f. Military
  - g. Occupational Health
  - h. Performing Arts
  - i. Physician Practice
  - j. Public Safety
6. Identify the role that best describes how you function in your current setting of employment.
- a. Head Athletic Trainer
  - b. Associate/Assistant athletic trainer
  - c. Graduate Assistant/Intern/Fellow Athletic Trainer
  - d. Professional/Post-professional Program Director
  - e. Educator (Non-PD affiliate)/Clinical Instructor
  - f. Outreach/PRN
7. Open ended: Do you serve more than one role at your current place of employment?
- Yes
- No
- If YES, please explain.
8. Please identify the setting(s) you have previously worked in as a certified Athletic Trainer. Select all that apply:
- a. College/University
    1. Division 1
    2. Division 2
    3. Division 3
    4. NAIA/Junior College
  - b. Higher Education
  - c. Secondary Schools
    1. Public
    2. Private
  - d. Professional Sports
    1. NFL
    2. NHL
    3. MLB
    4. NBA

## 5. Other

- e. Healthcare Administration/Rehabilitation
  - f. Military
  - g. Occupational Health
  - h. Performing Arts
  - i. Physician Practice
  - j. Public Safety
9. Identify the role that best describes how you function in this setting
- a. Head Athletic Trainer
  - b. Associate/Assistant athletic trainer
  - c. Graduate Assistant/Intern/Fellow Athletic Trainer
  - d. Professional/Post-professional Program Director
  - e. Educator (Non-PD affiliate)/Clinical Instructor
  - f. Outreach/PRN

Please circle the one number for each question that comes closest to reflecting your opinion about it.

1. I sometimes feel my job is meaningless
  - a. Disagree strongly
  - b. Disagree
  - c. Neutral
  - d. Agree
  - e. Agree strongly
2. I like doing the things I do at work
  - a. Disagree strongly
  - b. Disagree
  - c. Neutral
  - d. Agree
  - e. Agree strongly
3. I feel a sense of pride in doing my job
  - a. Disagree strongly
  - b. Disagree
  - c. Neutral
  - d. Agree
  - e. Agree strongly
4. My job is enjoyable
  - a. Disagree strongly
  - b. Disagree
  - c. Neutral
  - d. Agree
  - e. Agree strongly

5. Open ended: Are you currently searching for employment in a different setting? If so, please describe.
6. Open ended: what types of resources do you have?