THE INFLUENCE OF GENDER AND GENDER ROLE ON OCCUPATIONAL STRESS FOR ATHLETIC TRAINING EDUCATION PROGRAM DIRECTORS

by

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DEDICATION

This dissertation is dedicated to my Mom and Dad who instilled in me the importance of an education and the love of learning. I only wish that Mom was still here on earth to me to help me celebrate this accomplishment. I also dedicate this dissertation to my husband Marc and my children Abbegael and Matthew. Thank you for making the commitment and sacrifices to allow me to accomplish my dream.

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ABSTRACT

Athletic Training Education Program (ATEP) Directors and their administration need to understand the occupational stressors related to the ATEP Director position. The purpose of this study was to investigate how gender, gender roles, personal and professional characteristics and program factors influence the occupational stress of ATEP Directors. A survey research study was used to investigate the level to which ATEP Directors experience occupational stress, how ATEP Directors self-identify according to gender roles, as well as to determine the influence gender, gender role, personal, professional and program attributes on occupational stress. The study used multivariate linear regression with a model-building approach to determine if occupational stress for ATEP Directors was a result of personal, professional or programmatic characteristics. Gender, gender role and total number of students did have an effect on the occupational stress of ATEP Directors. Female ATEP Directors experience more stress than males and ATEP Directors who identify as having more masculine-like or agentic traits regardless of biological gender, experienced less occupational stress. As the number of students in the ATEP increased, so did the occupational stress of the ATEP Director. This study presents information that heightens awareness of the occupational stress of ATEP directors and that could assist in the development of mitigation practices to decrease the negative effects of occupational stress which might include burnout, physical and mental health issues, decreased commitment to job, and decreased job satisfaction and attrition.

CHAPTER 1

INTRODUCTION TO THE STUDY

Introduction

During the past sixty years there has been tremendous growth in the athletic training profession. Since 1950, the National Athletic Trainers' Association, (NATA), the professional organization for Athletic Trainers, has grown from just 200 members to over 37,000 members in 2011 (Ebel, 1999; National Athletic Trainers' Association, 2011b). In addition to the growth in the athletic training profession, there has also been growth in the number of accredited Athletic Training Education Programs (ATEPs). The 1970's marked the beginning of accredited athletic training education programs, with only four colleges and universities having an approved curriculum (Ebel, 1999). Since the 1970's, the number of ATEPs has continued to grow: in 1982 there were 62 ATEPs, 1999 brought 114 ATEPs and as of October 2011, there were 370 accredited entry level Athletic Training Education Programs in the United States (Commission on Accreditation of Athletic Training Education, *Accredited programs*, n.d.; Delforge & Behnke, 1999; Judd & Perkins, 2004)

As the numbers of accredited ATEPs have grown, the roles and responsibilities for the Athletic Training Education Program (ATEP) Director have also evolved and expanded (Judd & Perkins, 2004). According to Judd & Perkins (2004), during the past twenty plus years, ATEP Directors have experienced an increase in the number of roles and job responsibilities, subsequently, these increased roles and responsibilities have led

to a rise in the occupational workload and have complicated job requirements, both of which can affect job satisfaction (Judd & Perkins, 2004) and occupational stress (Burke, 1976). ATEP Directors perform multiple occupational roles simultaneously while they are fulfilling their employment obligations. Some of the multiple roles carried out by the ATEP Director include administrator, academician, program manager, advisor, mentor, researcher, as well as professional in their fields and sometimes practicing clinician (Judd & Perkins, 2004). Occupational responsibilities typically required by ATEP Directors include administration and evaluation of the academic program, student instruction, advising and mentoring, research, service (Perkins & Judd, 2001; Walter, Van Lunen, Walker, Ismaeli, & Onata, 2009) as well as curriculum development (Judd & Perkins, 2004). It is because of this increase in number of roles and overall workload, that ATEP Directors may experience occupational stress (Burke, 1976; Chandraiah, Agrawal, Marimuthu & Manoharan, 2003; Michael, Anastasios, Helen, Catherine & Christine, 2009).

"Occupational stress is a complex and multifaceted concept" (Vagg, Speilberger & Wasala, 2002, p. 258) which occurs when personal characteristics and abilities are not a good fit with the requirements and demands of the job (Speilberger & Reheiser, 1994). According to Andreson, Schalk and Humprey, occupational stress can occur when an individual's skills do not match the requirements of the job and can lead to potential physical, physiological, and mental health issues (as cited in Michailidis, 2008). According to Heilmen (1983), "the extent that a workplace role is inconsistent with the attributes ascribed to an individual, she or he would suffer from perceived lack of fit to

the workplace role, producing decreased performance expectations, increased expectations of failure, and decreased expectations of success (as cited in Eagly & Karau, 2002, p.579). As a result of this lack of fit or occupational stress, physical and psychological strain and disorders can result (Speilberger & Reheiser, 1994). Some other factors which may contribute to occupational stress include: workload (either over or underload) (Shultz, Wang & Olson, 2009); perceived levels of autonomy to do one's work, workload, conflict with colleagues and meeting deadlines (Speilberger & Reheiser, 1994).

Although the literature regarding gender and occupational stress has been mixed (Vagg et al, 2002), various studies have discovered that gender may have some influence on both the level of stress and on how one perceives and copes with occupational stress (Lease, 1999; Speilberger & Reheiser, 1994). Ultimately, "gender related differences in occupational stress appear to be determined by differences in the perceived severity of specific stressors, and in the frequency that these stressors are experienced by men and women" (Speilberger & Reheiser, 1994, p.213, 215).

Gender is a common social norm in our society and to which individuals typically identify themselves (Littlefield, 2003; Ridgeway & Carroll, 2004). With gender being one of those facets of identity that forms early in life and determines an individuals' concept of self (Deaux & Major, 1987). Gender outlines how one portrays their expected role, (Ridgeway & Carroll, 2004), is displayed at personal, relationship, and social levels (Enns, 2008) and can be salient as well as dependent on context of the situations (Enns, 2008; Harrison, Stone, Shapiro, Yee, Boyd, & Rullan, 2009; Ridgway & Carroll, 2004).

On a similar vein, gender roles are stereotypical roles which are delineated as male, female, or androgynous behaviors and are experienced in varying degrees (Antill & Cunningham, 1982; Olds & Shaver, 1980; Ward, Thorn, Clements, Dixon, & Sanford, 2006). Gender roles are typically defined in terms of an individual as having either male, masculine, instrumental or agentic characteristics or as having female, feminine, expressive or communal traits (Burton, Barr, Fink, & Bruening, 2009; Helmreich, Spence, & Wilhelm, 1981; O'Connor, Grappendorf, Burton, Harmon, Henderson, & Peel, 2010; Portello & Long, 1994). Androgyny on the other hand occurs when an individual identifies oneself as having a balance of both male (instrumental, agentic) and female (expressive, communal) traits (Antill, & Cunningham, 1982; O'Connor et al, 2010; Portello & Long, 1994). It has also been proposed that those individuals who identify as androgynous are more likely to adapt to the social demands and are protected from gender and gender role stresses (Chusmir & Koberg, 2001b; Gianakos, 2002; Littlefield, 2003). Conversely, those individuals who have low levels of both masculine and feminine traits are considered undifferentiated (Antill & Cunningham, 1982) thus having limited adaptability to social demands (Gianakos, 2002).

Statement of Problem

The multiplicity of occupational roles as well as gender and gender roles may influence occupational stress experienced by ATEP Directors. Since there is little information addressing the occupational stress experienced by ATEP Directors, the problem addressed in this study was to investigate how gender, gender roles, personal

and professional characteristics and program factors influence the occupational stress of ATEP Directors.

Purpose of the Study

Because of the combination of multiple roles fulfilled by an ATEP Director, the purpose of this survey research study was to investigate the occupational stress experienced by ATEP Directors as well as to determine the influence of gender, gender role, personal and professional characteristics and program factors on occupational stress of an ATEP Director.

Research Questions

1. Is gender associated with the occupational stress for ATEP Directors?
2. Are individual's gender roles associated with levels of occupational stress among ATEP Directors?
3. Is occupational stress associated with the personal characteristics of the ATEP Director?
4. Is occupational stress associated with the professional characteristics of an ATEP Director?
5. Is the occupational stress of an ATEP Director influenced by the institutional and programmatic characteristics of the ATEP?
6. Is occupational stress experienced by ATEP Directors influenced by gender, gender role, ATEP Director personal characteristics, employment characteristics, and institutional and program characteristics?

7. Does the influence of gender roles on occupational stress differ from men and women?

Significance of Study

This current study was both timely and important because there is little awareness and understanding of gender, gender roles, personal and professional characteristics and program factors their influence on occupational stress in ATEP Directors. Since ATEP Directors and their administrators need to understand the occupational stressors of the ATEP Director, it was the purpose of this study to investigate not only the amount occupational stress experienced by ATEP Director but also to study the influences of gender, gender roles, personal and professional characteristics and programmatic factors on those occupational stresses. By conducting this study, the results can educate ATEP Directors and their administrators regarding the amount of occupational stress experienced by ATEP Directors as well as the influences of gender, gender roles, personal and professional characteristics and program factors on occupational stress. As a result of this study, ATEP Directors and administrators may be able to identify and mitigate potential occupational stress issues which has been shown to increase the likelihood of physical and psychological stresses (Chusmir & Koberg, 1986; Chusmir & Koberg, 2001b; Elliott, 2008) which can lead to burnout (Walter et al, 2009) and possibly attrition (Judd et al, 2004).

Theoretical and Conceptual Framework

The theoretical framework informing this study was Role Theory. Role Theory is utilized to explain how an individual will act or is expected to interact with in society according to their "gender, age and social class identities" (Turner, 2001, p. 234). According to Turner (2001) there are four types of roles: basic (gender, class), position or status (organizational or familial), functional (context and situation dependent), and values (moral identities and behaviors). Similarly, role strain is an over-encompassing term used to describe or explain the stresses or negative reactions related to the fulfillment of various roles and responsibilities. Role strain encompasses role ambiguity, role overload, role incongruity, role incompetence and role conflict (Brumels & Beach, 2008).

The conceptual model for this study specifically utilized the concept of role strain (Figure 1) associated from Role Theory as it applies to ATEP Directors. This conceptual model was developed using previous research from Judd & Perkins, 2004; Perkins & Judd, 2001; Walter et al, 2009 regarding the ATEP Directors roles and responsibilities.

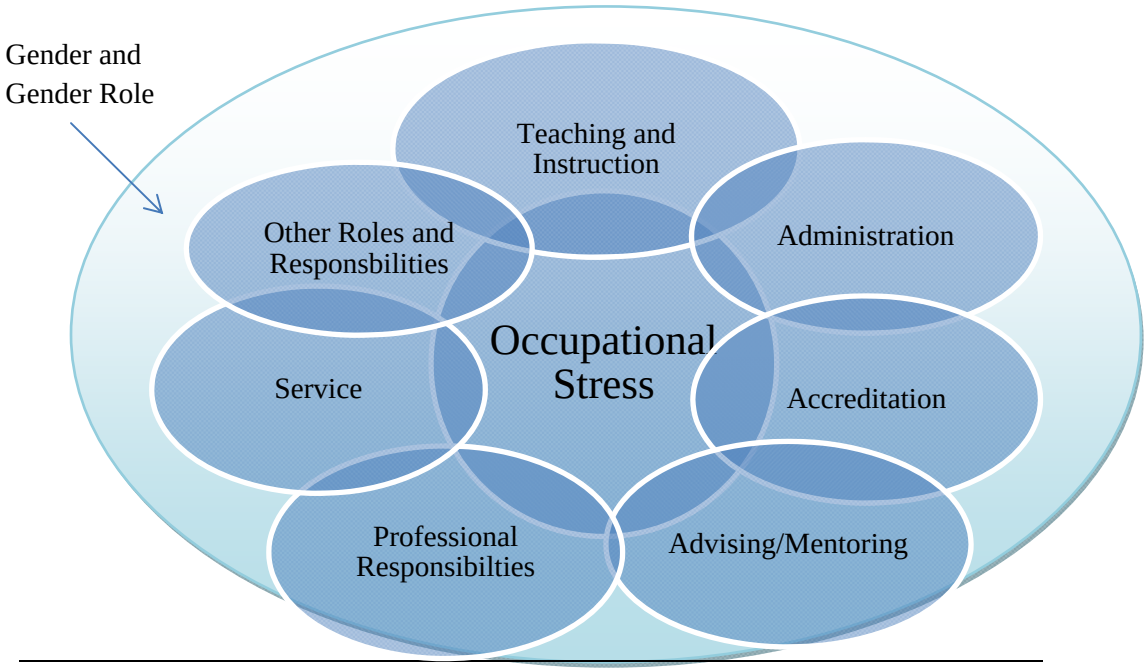

Figure 1. Role Strain

Role conflict theory helps explain role strain or role conflict, the experiences of individuals who display behavior that society expects rather than their own expected behavior (Chusmir & Koberg, 1986), which typically occurs when an individual has difficulty managing multiple roles (Elliott, 2008) or their values conflicts with the values of society (Senatra, 1988). Role strain also occurs when there are too many roles, nervousness regarding behaviors or inadequacies, or from either interrole or intrarole conflict all of which can result in "anxiety, tension and frustration" (Turner, 2001, p.249) and stress. Role overload, role ambiguity, and role incongruity can all lead to role conflict or strain (Henning & Weidner, 2008). Role overload is common when individuals are asked to perform too many roles for which they are equipped to perform or handle because of time and resources (Henning & Weidner, 2008; Turner, 2001) and

role ambiguity occurs when individuals do not have enough information or direction for a particular role, task or expectation (Wolverton, Wolverton, & Gmelch, 1999). Both role conflict and role ambiguity have been shown to lead to less job satisfaction, increased stress as well as decrease efficiency and dedication in the job (Wolverton et al, 1999).

Research Design

A survey design study (Johnson & Christensen, 2012) was used to investigate the occupational stress experienced by ATEP Directors as well as to reveal the relationship of gender, gender roles, personal and professional characteristics and program factors on occupational stress. The study also explored the interaction of gender and gender roles on overall occupational stress.

A five part survey was developed for this research project. Part one included data and background information regarding both the ATEP Directors and their programs. Part two included the Personal Attributes Questionnaire (PAQ) by Spence, Helmreich and Stapp in 1974 (Beere, 1990; Personal attributes questionnaire, n.d.) which was utilized to determine gender roles. Part three was an occupational stress survey asking ATEP Directors to rate their occupational stress level on various occupational roles for their position on a Likert scale. Part four inquired about the ATEP Directors' personal characteristics. Part five addressed perceptions of the ATEP Directors' professional and personal self as well as experiences with stress and coping strategies. The survey was distributed to all ATEP Directors via email using Zoomerang®. The names and email

contacts for all ATEP Directors were located on the Commission on Accreditation for Athletic Training Education (CAATE) website.

Data was analyzed using SPSS® version 19 software. Descriptive statistical analysis was used to determine ATEP characteristics, ATEP Director demographic and professional data, PAQ scores, overall support and overall occupational stress. The research questions were addressed with an ordinary least squares regression analysis (Urdan, 2005) as it was deemed most appropriate data analysis technique in order to test the relationships of gender, gender role, personal and professional characteristics and program factors on occupational role stress for ATEP Directors.

Operational Definitions

1. **Athletic training** is an allied health care medical profession recognized by the American Medical Association that specializes in the prevention, care and management of athletic injuries (NATA, 2010).
2. An **Athletic Training Education Program (ATEP)** is an accredited educational program which a student must successfully complete in order to be eligible to take the certification exam for athletic trainers (CAATE, *About CAATE*, n.d.).
3. **Athletic Training Education Program (ATEP) Director** is the individual who manages, supervises, and teaches within the accredited athletic training educational program as well as oversees all program administration (Judd & Perkins, 2004).

4. **Approved Clinical Instructor (ACI)** is an individual who provides direct supervision and instruction during an athletic training student's clinical experience (Henning & Weidner, 2008).
5. **Gender** is a common social practice delineating individuals into either a male or female category (Ridgeway & Correll, 2004) or on a continuum of being male or female (Chusmir & Koberg, 1986).
6. **Gender role** is used to describe how one is viewed and may behave according to masculine or feminine characteristics (Littlefield, 2003).
7. **Gender role conflict** occurs when an individual's behavior is inconsistent between their own values and expectations of society (Chusmir & Koberg, 2001b; Korcuska & Thombs, 2003; O'Neil & Carroll, 1988; Zamarripa, Wampold, & Gregory, 2003).
8. **Personal Attributes Questionnaire (PAQ)** was developed by Spence, Helmreich and Stapp in 1974 and is used to measure gender roles. The PAQ asks subjects to rate themselves on a scale after considering their personal traits (Beere, 1990).

Assumptions, Limitations and Delimitations

One of the assumptions for this study was that the PAQ is an accurate measure of gender roles for this population. The PAQ has been shown to be an accurate measure for self-identified gender role (Beere, 1990) and it has also been utilized in multiple studies since its inception. The other assumption was that the list of ATEP Directors was accurate. Since the CAATE is the accrediting body for ATEPs, it was assumed that the

information from their website regarding ATEPs and ATEP Directors was up to date and correct.

A limitation of this study included self-reported data from the ATEP Director. Since self-reported data involves multiple variables and recall, it may result in biases. Another limitation of this study was that the survey required self-reflection of the current ATEP Director. Self-reflection may also result in personal biases and may affect the overall experiences recorded. Additionally, the concerns regarding the association of gender, gender role, personal, professional, and program characteristics on occupational stress for ATEP Directors were based on a sample rather than the entire population. It is because the entire population of ATEP Directors did not respond to the survey that the sample data cannot be generalized for the entire population of ATEP Directors.

One delimitation to this study was that only ATEP Directors were surveyed and there was no feedback from other directors of other allied healthcare educational programs. Another delimitation of this study included the use of the PAQ which measures and classifies gender into either a masculine or feminine category rather than on a continuum.

Summary

This survey design study investigated the occupational stress experienced by ATEP Directors as well as the influence of gender, gender roles, personal and professional characteristics and program factors on occupational stress. By executing this research regarding occupational stress for ATEP Directors, it will start as a foundation in

the study of occupational stress and the influences that gender, gender roles, personal, professional, and programmatic stressors may have on occupational stress for ATEP Directors. The information for this study was gathered through the use of five part survey inquiring about program information, how an ATEP Director self-identified according to the PAQ, occupational stressors, ATEP Directors' demographic data and the ATEP Directors' perceptions of a professional and personal self as well as experiences with stress and coping strategies. The data collected from this study will be used to inform ATEP Directors, their administrators, and other athletic training professionals about the levels of occupational stress experienced by ATEP Directors as well as the influence of gender, gender role, personal and professional characteristics and program factors on occupational stress. A review of related literature will follow in Chapter 2. Chapter 2 discusses the history of athletic training and athletic training education programs as well as gender, gender roles, the theoretical framework for this study and occupational stress. Chapter 3 describes the methodology utilized for this study and Chapter 4 presents the results from the study. Lastly, Chapter 5 will discuss the findings from this study and will provide recommendations for current practice and further research.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Introduction

The review of literature is presented in four topic areas, all of which will contribute to the discussion regarding the relationship of gender, gender role, personal and professional characteristics and program factors on occupational stress for ATEP Directors. The effects of occupational stress on the ATEP Director are important to investigate given that fact that occupational stress leads to complications, concerns and ramifications for both the individual and the organization (Bradley & Eachus, 1995). The first category in the review of literature provides background information regarding the history of the profession of athletic training, the professional organization of athletic trainers, and athletic training education programs. The second section offers a brief introduction to occupational stress as well as the constructs and influences of gender and gender roles on personal and professional interactions and roles. The third section discusses the theoretical foundation for this study, Role Theory, and introduces the Role Theory concepts of role strain, role conflict, role congruity and role overload as well as gender role and gender role conflict. Research regarding occupational stress, the influence of gender and gender role on occupational stress, occupational stress for athletic training professionals and coping strategies for occupational stress are reviewed in the last section.

Athletic Training and the National Athletic Trainers' Association (NATA)

History of Athletic Training and the NATA

The profession of athletic training can be traced to ancient Greek times with resurgence during the early colonial eras of higher education (Ebel, 1999) where the first athletic trainers were considered to have had no technical knowledge (Prentice, 2009) or formal training. The athletic training profession evolved throughout early American history and the first athletic trainer appeared in the intercollegiate setting after World War I. After WWI, the profession continued to grow with the assistance of Dr. S.E. Bilik and the Cramer family (Prentice, 2009). The modern athletic training profession of today can be traced to the 1930's when there was continued and sustained growth resulting in more athletic trainers practicing in the college setting (Prentice, 2009). During World War II, the growth in athletic training slowed significantly, however, during the late 1940's and early 1950's, the growth in athletic training was revitalized. It was also during this time in the mid twentieth century that the modern day NATA was formed (Ebel, 1999; Prentice, 2009). It was more than a decade later, in the late 1960's, that the earliest roots to formal athletic training education programs can be traced (Delforge & Behnke, 1999).

During the 1970's, the profession of athletic training changed and the NATA reorganized as well. "The 1970's would indeed be remembered as a decade of accelerated change, highlighted by the advent of certification to substantiate an athletic trainer's proficiency, the demise of "men only" as a generous infusion of women gravitated to athletic training, and the licensing of athletic trainers by the state in which

they practiced" (Ebel, 1999, p.13). In the 1970's, the NATA began to officially track membership. During the first NATA census in 1974 there were just 4,500 members (Prentice, 2009). There are various accounts of growth in the NATA, but according to Ebel (1999), in 1950 there were 101 members, in 1960 there were 773 members, and in 1970 there were 1,600. In 1980 there were 6,936 members and by 1990 there were 14,598 members. According to the NATA's website, as of October, 2011 (NATA, 2011b), there were 37,894 members in the NATA, more than doubling membership in the last twenty years. "Athletic training has evolved over the years to play a major role in the health care of the physically active in general and the athlete in particular" and the athletic trainer is responsible for the prevention, evaluation, care and rehabilitation of an active individual (Prentice, 2009, p.2). In 1990, the athletic training profession was officially recognized by the American Medical Association as an allied health care profession (Prentice, 2009).

Athletic Training Education Programs

Not only has there been growth in the athletic training profession but there has been an increase in the number ATEPs as well. As of October 2011, there were 370 accredited entry level ATEPs as compared to only 114 in 1999, 62 in 1982, and only 4 in 1969 (CAATE, *Accredited program*, n.d.; Delforge & Behnke, 1999; Judd & Perkins, 2004). In October 2011, on the CAATE website, 53% (196) of the 370 ATEPs programs were led by male program directors and 47% (174) of the programs were led by female program directors (CAATE, *Accredited programs*, n.d.).

ATEPs have grown and evolved since the first programs of the 1970's to present day (Delforge & Behnke, 1999; Ebel, 1999; Hertel, West, Buckley & Denegar, 2001) and both the curriculum and accreditation processes have changed significantly over the last forty years (Ebel, 1999). Athletic training education curriculum underwent major changes since the 1960's, moving from requiring a few courses, which were also required for admission into physical therapy schools, to requiring athletic training education programs to have their own major of study (Delforge & Behnke, 1999). In 1993, all ATEPs were required to have accreditation and by 2004 only those students who graduated from an accredited program were eligible to take the national certification exam, the Board of Certification (BOC) exam in order to become certified as an athletic trainer (Prentice, 2011).

During the past eighteen years, the accreditation process for athletic training education programs has experienced several significant changes. The first ATEP was accredited in 1994 and twelve years later, in 2006, the CAATE was established and now oversees the accreditation for all athletic training education programs (CAATE, *About CAATE,* n.d.; Delforge & Behnke, 1999; Prentice, 2009). Today, in order to become a certified athletic trainer, a student must attend a CAATE accredited ATEP and must pass the national BOC exam (Prentice, 2011). A brief overview of the timeline to demonstrate the evolution of the athletic training education programs follows.

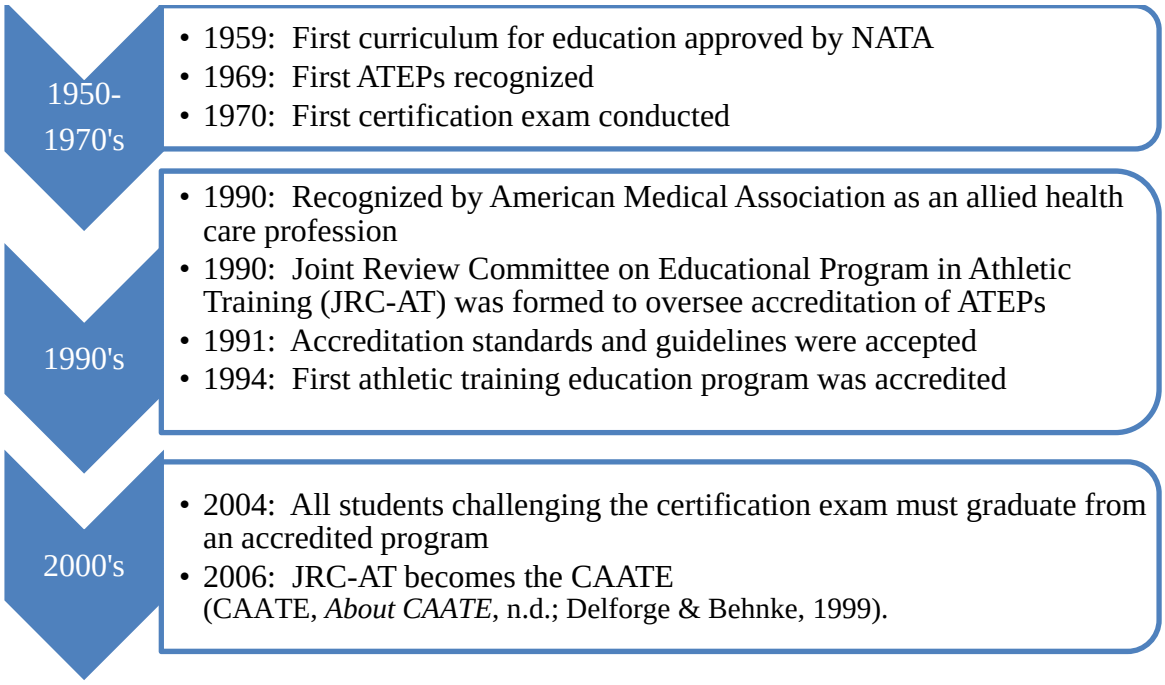

Figure 2. Timeline of changes in ATEPs

Due to the changes and growth in the athletic training profession and the requirements for students to graduate from an accredited program, "the expanding roles and responsibilities of athletic training education program directors in colleges and universities have led to a multifaceted position that has increased the complexity and workload" (Judd & Perkins, 2004, p.185). Currently "the ATEPD is not only an educator but also a manager and administrator" and there are many facets to the athletic training education program director's job responsibilities which may include: maintaining CAATE accreditation, teaching courses within the curriculum, mentoring and advising students, curriculum development as well as the overall program management and administration (Judd & Perkins, 2004, p.141). Not only does an ATEP Director need to be concerned about the overall administration and management of the program, but if the

ATEP Director is tenure-track or tenured, the scholarship and service components are also additional roles and responsibilities for that position (Perkins & Judd, 2001; Walter et al, 2009).

Women in Athletic Training and Athletic Training Education Programs

Women have contributed to the growth in athletic training profession since the middle of the twentieth century. Since 1950, the NATA, the professional organization for athletic trainers, has grown from 100 members with no women in the membership, to over 37,000 members in 2011, with women representing just over half of the membership with 52.3% (Ebel, 1999; NATA, 2011b). In the 1970's, Title IX brought significant changes to females participating in sports (Miller & Levy, 1996) and has contributed to the growth of women in sports related professions as well as becoming leaders in those professions (Harrison et al, 2009). Not only are more women participating in more sports as a result of IX, but women are also now contributing to the growth of some sport related professions such as the athletic training profession (NATA, 2010) as well as serving in roles of administration such as Program Director within ATEPs.

"The (athletic) training room had always been the sanctum of men and boys", however with the passage of Title IX, "it opened a vast migration of women into competitive sports: accompanying them were women who were preparing themselves to treat their injuries" (Ebel, 1999, p.67). At first, women athletic trainers struggled with gaining access to both education and experience however they have also found support from their male counterparts, with majority of the resistance stemming from athletic

directors and administrators (Ebel, 1999). The first female athletic trainer joined the NATA in 1966 (Ebel, 1999) and now there are currently 19,813 women in the NATA (NATA, 2011b). Additionally, another historical event in athletic training occurred in 1972 when the first female took the national certification exam (Ebel, 1999). The evolution of women in the athletic training profession has also witnessed more involvement of women in the NATA as marked by Julie Max, who in 1991, served as the vice president on the board of the NATA (Ebel, 1999). At the time of this study in 2011, Marjorie Albohm was the president of the NATA Board of Directors (NATA, 2011a) and President Albohm was the first female to serve in this capacity. Given the historical and contemporary contributions of women to athletic training profession and the ATEPs, it is important to determine if gender and gender role influence occupational stress for ATEP Directors.

Independent and Dependent Variables

Occupational Stress

The World Health Organization (WHO) defines stress as "pressure, tension or worry resulting from problems in one's life" (Michailidis, 2008, p.195) with stress having strong relationships to significant health issues in the United States (Michael et al, 2009). Correspondingly, "occupational stress is a complex and multifaceted concept" (Vagg et al, 2002, p. 258) which it occurs when personal characteristics and abilities do not fit well with the requirements and demand of the job (Speilberger & Reheiser, 1994). According to Heilmen (1983), if the occupational roles and expectations are not consistent with an

employee's personal attributes and skills, the employee may experience a "lack of fit" and decreased performance (as cited in Eagly & Karau, 2002, p.579). It is because of this "lack of fit" and the subsequent occupational stressors which can result in physical maladies and mental strain as well as to decrease job satisfaction (Speilberger & Reheiser, 1994). Not only does occupational stress affect the employee, but it also affects the organization (Bradley & Eachus, 1995).

According to the 'An Organizational Stress Screening Tool' (ASSET) model developed by Cartwright and Cooper in 2002, there are eight common occupational stressors identified in the literature. These common stressors include: work relationships, work-life imbalance, overload, job security, control, resources and communication, pay and benefits, and aspects of the job itself (Barkhuizen & Rothmann, 2008, p.322). In addition to the previous eight categories, other factors which affect occupational stress were identified throughout the literature review for this research study. Some of these other factors include: perceived levels of autonomy to do one's work, workload, conflict with colleagues, meeting deadlines, inadequate salary (Speilberger & Reheiser, 1994), "work overload, too much responsibility, too little authority" (Burke, 1976, p.237), too much or too little workload (Shultz et al, 2009), lack of support, role conflict and role ambiguity (Michael et al, 2009) as well as multiple role demands (McLaine, 2005).

Gender and Gender Role

Since the primary focus of this study was to investigate the potential influences of gender and gender roles on occupational stress, it is important to have an understanding

of the gender construct as well as the potential relationship that gender and gender role may have with personal roles, professional roles, and occupational stress.

Gender is developed and determined early in life and it affects an individual's self-concept (Deaux & Major, 1987; Owen Blakemore, Berenbaum & Liben, 2009). "Gender is an institutionalized system of social practices for constituting people as two significantly different categories, men and women, and organizing social relations of inequality on the basis of that difference" (Ridgeway & Correll, 2004, p.510). This gender system of classification is based on availability of resources, behavior and self-identity (Ridgeway & Correll, 2004) as well as "enacted at the individual, interpersonal and structural levels" (Enns, 2008, p.447).

When discussing gender, the differences between sex and gender are often brought to attention and often results in confusion (Owen Blakemore et al 2009). According to Unger (1979) and Winstead, Derlega & Unger (1999) gender is typically used to describe one's social or cultural behaviors whereas sex is typically used to describe the biological characteristics of an individual (as cited in Owen Blakemore et al, 2009). Gender is different than sex but can be dependent or characterized upon biological sex characteristics.

It must be noted also that gender, "will guide behavior only to the degree that it is activated" (Deaux & Major, 1987, p.375). Gender is considered a salient identity construct, it may be affected by an individual's age, class, and ethnicity and it can, in turn, affect their power and status in social contexts (Enns, 2008; Owen Blakemore et al, 2009; Ridgeway & Correll, 2004). Initially, early research considered gender to exist on

two opposite ends of a spectrum, whereas other research often considers gender to exist on a continuum (Chusmir & Koberg, 1986). In spite of the research of gender existing on a continuum, it is for the purpose of this research that gender (male or female) should not be referenced with the gender continuum nor sexual orientations or identity (heterosexual, lesbian, gay, bisexual, transgender) characteristics (Owen Blakemore et al, 2009).

On a similar vein to gender, gender role can be defined as "the normative expectations of a cultural group regarding the position that males and females hold in society" (Littlefield, 2003, p.94). Orientation to gender roles examines how a person describes themselves as either having instrumental, agentic or male traits or expressive, communal or female traits (Burton et al, 2009; O'Connor et al, 2010; Portello & Long, 1994) with gender role orientation viewed as "masculine, feminine, androgynous and undifferentiated" (Whisenant, 2008, p.769).

"Gender role identity is often operationalized as the degree to which individuals possess personality traits that are stereotypically associated with being male (e.g., strong, independent, aggressive) and traits that are stereotypically associated with being female (e.g., warm, nurturing, expressive)" (Littlefield, 2003, p.95). Androgyny occurs when an individual identifies oneself as having both strong male (instrumental, agentic) and female (expressive, communal) traits (O'Connor et al, 2010 & Portello & Long, 1994), whereas an undifferentiated gender role occurs when there are low levels of both masculinity and femininity (Whisenant, 2008). It has been observed that androgynous individuals may be at an advantage regarding role demands because androgynous

individuals have the ability to adapt to the social demands for certain behavior rather than conforming to the specified gender role of male or female (Chusmir & Koberg, 2001b). It is because of this state of flexibility and adaptability that individuals who identify as androgynous are considered somewhat protected from gender role conflict stressors (Littlefield, 2003). On the contrary, individuals who are classified as undifferentiated have been observed to be less adaptable and have decreased socialization skills (Gianakos, 2002) resulting in having a difficult time adapting to differing gender role demands.

Theoretical Framework

Since gender and gender roles can impact the various personal and professional roles in life, it is necessary to further describe the impact that gender and gender roles may have on role conflict. During the first section of the theoretical framework, the general model of Role Theory will be used to describe the part that roles will play in personal and professional interactions as well as to discuss role conflict, role ambiguity, and role overload all which may lead to the overall consequences of role conflict or strain on occupational stress. The second section of the Role Theory model addresses the specific gendered approach to Role Theory and discusses the impact of gender role and gender role conflict on role conflict or strain as well. This gendered approach to Role Theory is necessary to discuss since the field of athletic training has been changing from a historically male dominated profession to more gender balanced profession (Ebel, 1999; NATA, 2011b)

Role Theory

Role Theory may be used to illustrate how an individual behaves both at the individual and social levels (Turner, 2001). According to Turner (2001), it is important to remember that the "role refers to a cluster of behaviors and attitudes that are thought to belong together, so that an individual is viewed as acting consistently when performing the various components of a single role and inconsistently when failing to do so" (p.233). Essentially, Role Theory is used to explain how an individual will act or is expected to interact within society according to their gender, personal identities, group roles, work status or value status (Turner, 2001). Maintenance of roles occurs when one determines a need for balance between roles. An individual needs to be able to determine the effect, benefits, cost-benefit ratio or repercussions of their behaviors and roles on a relationship. Typically once a role has been established, those roles tend to stabilize or persist because that is what the individual and society allocates, appreciates and expects (Turner, 2001). Some factors which affect this maintenance of roles are power, compensation, status and prestige and when there is any incongruence between the role and the perceived self, role conflict results (Turner, 2001).

Role Strain

Role strain occurs when there are too many roles, nervousness regarding behaviors or inadequacies, or from either interrole or intrarole conflict all of which can result in "anxiety, tension and frustration" (Turner, 2001, p.249). Goode's Role Theory states that people want to carry out the expectations placed upon them but unfortunately not everyone can fulfill those expectations or roles (Henning & Weidner, 2008). There

are some facets to Goode's Role Theory which helps define and understand role strain. These include:

1. Role occupant defines the individual who takes on the assumed role.
2. Role set defines the number of multiple identities and relationships that an individual may have.
3. Role obligation defines those requirements for individuals who occupy a certain role set.
4. Role strain defines the moment when an individual experiences difficulty fulfilling all of their obligations.
5. Role stress defines the moment when an individual experiences difficulty because their roles are ambiguous, inconsistent or incompatible (Henning & Weidner, 2008).

Role overload, role ambiguity, and role incongruity are all concepts which comprise role stress and can then lead to role conflict or strain (Aziz, 2007; Henning & Weidner, 2008). Role overload is common when individuals are asked to perform too many roles for which they are equipped to perform or can handle because of time and resources (Henning & Weidner, 2008; Turner, 2001), whereas role ambiguity occurs when an individual lacks the necessary information needed to perform a required task or job duty (Burke, 1976; Wolverton et al, 1999). Role conflict and strain affects occupational stress as well as job satisfaction (Brumels & Beach, 2008; Henning & Weidner, 2008; Wolverton et al, 1999) and women tend to report more role strain as a

result of fulfilling multiple roles in both the family as well as work settings (Henning & Weidner, 2008).

Role Conflict, Role Congruity and Role Overload

Individuals are required to play numerous roles when interacting with others. Often times these roles maybe viewed as inconsistent as the roles change depending on the constructs and the situation (Turner, 2001, p.245). Role Theory states that when one's exhibited behavior is not consistent with expected behavior, role conflict will occur, and that person will not be satisfied and experience stress as result (Burke, 1976). The construct of role conflict also illustrates the potential experiences of individuals who display behavior which society expects rather than their own expected behavior, such as gender (Chusmir & Koberg, 1986). Role conflict or strain then typically occur when an individual has difficulty managing multiple roles (Elliott, 2008) or their values conflict with the values of society (Senatra, 1988). Intrarole conflict typically occurs when there are vague conditions or criteria and the individual is in discord because the roles are not clearly delineated and because of the typical chain of commands found naturally in society and organizations (Turner, 2001).

The complex nature of organizations also factors into intrarole conflict. Uncertainty of how others will act or respond, as well as the values, the leadership, and the multiplicity of roles is often confusing for individuals within an organization, which can also lead to intrarole conflict or strain. When a person's actual behavior is inconsistent with expectations, interrole conflict may occur (Turner, 2001). Interrole conflict may occur, or the extent to which conflict may occur, will vary when there are

inconsistencies between expected and actual behavior because society's expectations can be salient and can be situation dependent (Turner, 2001). When investigating approved clinical instructors (ACIs) in ATEPs and academic deans, role conflict and strain was shown to lead to less job satisfaction, increased occupational stress, as well as decrease efficiency, and dedication in the job (Henning & Weidner, 2008; Wolverton et al, 1999). However, it is also important to note that those individuals who are older and more experienced encounter a lower amount of role ambiguity and role conflict (Wolverton et al, 1999) and role conflict has not been positively correlated with number of hours worked (Henning & Weidner, 2008).

Role incongruency occurs when one role or value is not compatible with another role or value (Aziz, 2007). The construct of role congruity proposes that there needs to be similarities or equivalence between roles. For example, gender roles must be congruent with other life roles such as leadership (Eagly & Karau, 2002). According to Garcia-Retamero & Lopez-Zafra (2006), "gender role congruity pertains to the congruity between gender and other roles" (p.51), additionally, Eagly & Karau (2002) and Diekman & Goodfriend (2006) state that role congruity theory suggests that individuals will be seen and evaluated in a positive aspect if their characteristics and behaviors are in line with the expectations of their assumed roles. Differences between expected and displayed behaviors can occur and result in incongruence. "Incongruity elicits negative (or hostile) reactions, whereas congruity elicits positive (or benevolent) reactions" (Eagly & Karau, 2002, p.579). If one experiences incongruency between roles and expectations, negative reactions occur and if congruencies between roles and expectations occur,

positive reactions result. The resultant amount of incongruity varies according to the different profession and leadership roles (Eagly & Karau, 2002).

Furthermore, role congruity theory helps demonstrate the sex-matching model. The sex-matching model states that men and women often occupy jobs according to current number of jobs available and the ratios of men and women in those jobs. In other words, more women work in currently female dominated professions (Burton et al, 2009) and tend to work in fields that are well matched to the female stereotype (Garcia-Retamero & Lopez-Zafra, 2006) whereas men work in more diversified occupations with no particular dominate male occupational category (Luhaorg & Zivian, 1995).

Role overload occurs when "role expectations are too complex or make too many demands for the time and energy available or there is a conflict between quality and quantity given the time constraint" (Henning & Weidner, 2008, p.276). In the study by Henning & Weidner (2008) role overload was found to create the largest amount of role strain for ACIs for ATEPs and been found to correlate with burnout in nursing faculty. Additionally, in a study by Shultz et al (2009), it was determined that role overload contributed to the largest number of occupational stress related health issues. In the same article by Shultz et al (2009), role overload was found to be associated with mental and physical health issues, thus stressing the importance of having a balance between role under-load and role overload (2009). Finally, in a study by Aziz (2007), role overload was found to occur more often in married women, because of the dual roles necessary for both family life and work.

Because of the growth and changes to the athletic training professional and the athletic training education process, as well as the multiplicity of roles required for an ATEP Director (Judd & Perkins, 2004), role ambiguity, role incongruity, and role overload all have the potential of occurring for the ATEP Director. Sequentially, with the changes to the gender context, environment, and structure of the athletic training profession and the ATEP Director's role, this gendered change may also create gender role conflict or strain and result in occupational stress. Given the gendered changes to the athletic training profession and the changes in the ATEP Director's position, the next section will discuss how gender, gender roles and gender role conflict may also result and may influence the occupational stress of ATEP Director. This gender approach is ideally suited to studying occupational stress and gender within this specific occupational field.

Gender Roles

Individuals learn their life roles early in childhood, through both observation and lived experiences with their parents, teachers and school administration, peers, and media (Turner, 2001) with gender roles being just one example of the numerous roles that children will learn to fulfill. "Gender roles are consensual beliefs about the attributes of women and men" (Eagly & Karau, 2002, p.574). Gender roles are the expectations that individuals and society have for males, females and androgynous individuals (Littlefield, 2003) and are based on identified sex, and vary amongst different cultures (Owen Blakemore et al, 2009). Gender roles can also be viewed from either the socialization or structuralist point of view (Portello & Long, 1994). The Social Role Theory further helps to explain how gender and roles or personal attributes may affect various positions and

responsibilities within the occupational setting. According to the Social Role Theory, there are expectations as well characteristics which are seen as both appropriate and desirable for a man or a woman (Burton et al, 2009). Women are typically seen to fulfill communal (caring, sensitive, helpful) roles and men are typically believed to fulfill agentic (aggressive, independent, self-confident) roles (Burton et al, 2009; Diekman & Goodfriend, 2006).

The socialization perspective states that gender roles or gender stereotypes are not readily and easily changed. For example, women who are socialized to have feminine characteristics are more likely to exhibit feminine characteristics and find it difficult to exhibit male characteristics (Portello & Long, 1994). On the other hand, the structuralist perspective states that gender roles and behaviors are situation dependent, meaning the situation will warrant behavior, rather than gender roles or stereotypes predicting behavior. For instance, men and women's behavior is affected by their job title, responsibilities or status rather than their gender (Portello & Long, 1994).

The extent of role behaviors, such as gender role behaviors, also varies depending on the person and the context, and will be dependent on the individual's self-identity and personality (Turner, 2001). Gender roles are viewed as guidelines, not necessarily determinants of behavior (Elliott, 2008). Gender roles not only affect one's personal life, but also affect one's professional life because gender and gender roles can carry over from one aspect of life into another aspect and activate the gender belief system. The gender belief system is active when others believe expect men and women to look and behave according to gender role expectations (Deaux & Major, 1987). There is usually a

convergence between the two identities of one's personal and profession life because of that tendency for individuals to be held to the same expectations or roles (Turner, 2001) as a result of their gender. "When gender roles are applied to men and women, certain jobs can be viewed as more appropriate for men or women, which can result in prejudice toward women in male-dominated field and a perceived incongruity exists between what is expected of women based on their gender role and the expectations of leaders" (O'Connor et al, 2010, p.387).

Gender roles expectations also affect how individuals interact and participate within an organization (Turner, 2001). If gender role stereotypes are applied, some occupations or roles will be considered as more appropriate for either a male or a female (Burton et al, 2009). It has also been discovered that theoretically, individuals need to be fairly consistent with their engendered behaviors in order to maintain stable relationships with others (Deaux & Major, 1987), that gender roles affects how one interacts with others, as well as affecting how one evaluates another's performance (Ridgeway & Correll, 2004).

Fortunately, it has also been demonstrated that orientation to gender roles can change. In a study by Judge and Livingston (2008), the researchers discovered that gender role orientation can change over time, with gender orientation and gender roles becoming less traditional as time has progressed. The researchers also found that both men's and women's traditional gender role orientations have changed with the transformation occurring more rapidly in men's gender role orientations and with younger people accepting less traditional gender role orientations than older individuals

(Judge & Livingston, 2008). Recent findings as cited in Owen Blakemore et al (2009) have also demonstrated that changes in gender orientation within the human population have occurred over time, discovering that women tend to make changes and adapt their behaviors to become male-like, however, found that men have not made those similar changes.

Gender Role Conflict

Research on gender role conflict has been mixed at best (Evans & Steptoe, 2002; Fallon & Jome, 2007). According to O'Neil, gender role conflict is "a psychological state in which gender roles have negative consequences or impact on the individual or on others" (as cited in Korcuska & Thombs, 2003, p. 205). Gender role conflict occurs when an individual's behavior is inconsistent between their own values and those rigid, sexist and restrictive expectations of society (Chusmir & Koberg, 2001b; Korcuska & Thombs, 2003; O'Neil & Carroll, 1988; Zamarripa et al, 2003). Gender role conflict occurs when learned roles and expectations restrict the identity of one's self-concept (Chusmir & Koberg, 1986) and can occur when that individual believes there is an obligation to meet the expectations of their expected role (Livingston & Judge, 2008).

Gender role conflict "has been found to be negatively correlated with job satisfaction, professional commitment of managers, job involvement, and organizational commitment, and positively with absenteeism, propensity to leave, and turnover" (Chusmir & Koberg, 2001b, p.567). Gender role conflict also increases stress, which can lead to physical and mental illness or disorders (Chusmir & Koberg, 1986). Consequently, issues with gender, gender role and gender role conflict can lead to an

increase in physical health issues, absenteeism and stress (Chusmir & Koberg, 1986; Chusmir & Koberg, 2001b). The degree to which one experiences gender role conflict can also be affected by one's occupation, how that occupation is viewed and whether that occupation is either female or male dominated (Luhaorg & Zivian, 1995). For many women and men, success in the different identities (work and home) may require two very separate and different sets of expectations and behaviors, which may result in the development of a work identity and a home identity (Chusmir & Koberg, 2001a).

Research has also demonstrated that both females and males avoided work situations which require opposite traits while working in their traditional female or male occupational setting, more so with females working in a male occupation or males working in a female occupation (Luhaorg & Zivian, 1995). In a study by Luhaorg and Zivian (1995), the researchers discovered that gender role conflict was higher for males in traditional female occupations and higher for female working in traditional male occupations. For example, male nurses may experience more gender role conflict because of working in a traditionally female occupation role as would women who work in management would experience more gender role conflict because of working in a traditionally male occupation role. In the same study by Luhaorg & Zivian (1995), it was demonstrated that when there was an androgynous role identified, the results were not clearly related between gender role conflict and occupation. However, in an additional study by Koberg and Chusmir, working in what would be considered a non-traditional occupation or dominated by the opposite sex did not always contribute to gender role conflict. Meaning that some individuals who are working in occupations dominated by

the opposite sex “may have rejected stereotyped gender roles” (as cited in Luhaorg & Zivian, 1995, p.609).

While many individuals can accept “having social roles different than their self-images, others experience significant stress when their cultures or organizations hold rigid standards for sex role behavior and conflict may occur when these cultures and organizations treat individuals differently” (Chusmir & Koberg, 1986, p. 398). It must be noted that gender roles are guidelines rather than pure determinants for behavior because of the numerous variations among men and women and their attitudes (Elliott, 2008) and individuals may display different behaviors or take on different roles depending on the situation and the timing of the event (Deaux & Major, 1987).

Although the research on gender role conflict has been mixed, (Evans & Steptoe, 2002; Fallon & Jome, 2007) research as a whole has found that, women tend to experience more gender role conflict than men, especially when evaluating family and occupational stresses (Luhaorg & Zivian, 1995). According to Fallon & Jome (2007), gender role conflict “may be more complex than current gender role conflict theories can explain” (p.313). And it has been shown that multiple roles for women do not always lead to gender role conflict if they are having their physical, mental and psychological needs met through other venues or activities (Soled & Blair, 1990).

Men too are affected by gender role conflict (Chusmir & Koberg, 2001b). With the number of women in workforce increasing, this increase has impacted both the men and women. With the increase of women in the workforce, men as a result, have received less support from the women to help them balance work and family, whereas

women have experienced more conflict because of the need to juggle both work and family (Zamarripa et al, 2003). Generally speaking, women normally report more anxiety and depression as a result of gender role conflict (Evans & Steptoe, 2002).

As mentioned in the last section, with discussion surrounding Role Theory and the effects of gender role and gender role conflict, it can be hypothesized that gender and gender role may also affect occupational stress and for this particular study, the occupational stress of ATEP Directors. This last section will examine the research regarding the effects occupational stress, the influences of gender on occupational stress, the role conflict and occupational stress experienced by athletic training professionals, along with the coping strategies typically enlisted by individuals will also be discussed.

Research on Gender, Gender Roles and Occupational Stress

Effects of Occupational Stress

According to Lease (1999), occupational stress not only affects one's work impacting "productivity, turnover, decreased job satisfaction" but can also "spillover" into one's personal life, which can affect mental and psychological health status as well as one's commitment work and the organization (p.288). Furthermore, "the adverse effects of occupational stress on productivity, absenteeism and health-related problems are substantial and well documented" (Vagg et al, 2002, p.243). Unfortunately, the tension from occupational stress does exist not in a vacuum rather it can impact many other facets of life including one's place of employment and personal wellbeing. The effects of occupational stress on the institution or company include decreased employee

productivity, employee dissatisfaction and attrition, whereas the effects of occupational stress on the individual consist of emotional, physical and psychological issues (Lease, 1999). For those individuals who report higher levels of occupational stress, they are also more likely to be the ones who put more time in at work, have a higher propensity to leave their job, suffer from stress related medical issues, as well as experience burnout (Speilberger & Reheiser, 1994). Taken as a whole, burnout, physical and mental health issues, exhaustion, and decreased commitment can all occur as a result of occupational stress (Lease, 1999). It is because occupational stress can have such negative consequences on both the organization as well as the individual that it is important to investigate and discern the overall occupational stress experienced by ATEP Directors. It is also important to discover if gender, gender role, personal and professional characteristics and program factors influence the occupational stress for ATEP Directors.

Influence of Gender and Organization on Occupational Stress

The literature regarding the influence of gender on occupational stress has been mixed (Owen Blakemore et al, 2009; Vagg et al, 2002). Some studies which have investigated gender and occupational stress have discovered that gender can be a predictor of stress and that gender can affect how one perceives as well as how one copes with occupational stress (Lease, 1999; Speilberger & Reheiser, 1994). Women tend to deal with stress on a more emotional basis, whereas women deal with stress on a more instrumental basis (Narayanan, Menon, & Spector, 1999). The differences between men and women regarding occupational stressors tend to be determined by both the perception

of the stressor as well as the frequency of those stressors (Speilberger & Reheiser, 1994). Individuals' personal characteristics such as aptitude, gender, and the variety and the level of work will also influence the type and degree of occupational stress (Vagg et al, 2002). In a literature review performed by Vagg et al (2002), men and women were both affected by occupational stress but were affected differently. Women tend to experience more psychological issues whereas men experience more physical stress. Likewise, other research has found that different aspects of the work environment affect men and women differently. Women are more affected by interpersonal conflict, lower earnings and lack of personal time and men are more affected by not having a say in policy and intradepartmental conflicts (Vagg et al, 2002). When continuing the investigation of occupational stress and determining the differences according to gender, women describe stress as being caused by low salaries, having to perform peer's tasks or tasks unrelated to responsibilities, lack of personal time, competition for promotion (Michael et al, 2009), discrimination, work family conflict (Doyle & Hind, 1998), lack of a role model, the climate of the organization and being the "token women" (Doyle & Hind, 1998). Men on the other hand, are stressed by the lack of participation in the decision making process, by negativity regarding the organization, or by conflict within the organization (Michael et al, 2009).

When evaluating occupational stress for specific professions, it has been discovered that there are particular stressors related to different occupations. For example in higher education, Elliot (2008) reported that faculty described tenure status as well as low pay and low support as stressors. Lease (1999) also described tenure status

as a stressor, but also added that age and lack of a mentor are stressors for higher education faculty. Wolverton et al (1999) in their literature review evaluated stressors for academic deans and discovered that the size of institution, marital status, race, age and tenure all can affect the occupational stress of academic deans as well. With all the aforementioned stressors, it just reiterates the number and variety of potential factors which may cause occupational stress. Ultimately, each occupation is unique in the types of stressors and in order to reduce stress "occupation specific intervention for reducing work stress" (Narayanan et al 1999, p.71) is suggested and further investigation is needed to determine if occupational stress is a result of gender or differences within individuals or other factors (Senatra, 1988).

In spite of some research finding a relationship between gender and occupational stress, other research did not demonstrate that gender played a role in occupational stress (Vagg et al, 2002). However, there may be a "negative roll spillover" of occupational stressors spilling over into one's personal life, and the perception of the one's overall role load was more noteworthy than the actual number of roles (as cited in Lease, 1999, p.299). Additionally, Jick & Mitz in 1985 found that gender "not only (acts) as a direct predictor of the source of stress, but also as a moderator affecting how stress is perceived, what coping skills are called upon and how stress is manifest" (as cited in Speilberger & Reheiser, 1994, p.205)

It has been determined that the organizational level may have more of an effect on occupational stress when compared to gender (Vagg et al, 2002), with work overload and work-family imbalance stressors having the greatest effect on an individual's physical

health, and work overload having the greatest effect on psychological health (Barkhuizen & Rothmann, 2008). The climate of the organization can also affect stress (Teo & Waters, 2002). According to Harris "occupational stressors associated with the climate and culture of an organization can have profound effects on employees" (as cited in Speilberger & Reheiser, 1994, p.204). The ability to have control over decisions and situations as well as to have the ability to take part in the decision making process most positively affects or buffers the effects of occupational stress (Teo & Waters, 2002). In a study by Teo & Waters, (2002), increased age decreases the incidence of occupational stress but the research regarding marital status being mixed, with Teo & Water (2002) finding that marriage decreases occupational stress, whereas Michael et al, (2009) demonstrated that married women with children have a higher incidence of stress. The structure of the organization can also effect occupational stress and it has been found that "a supportive HR environment does play some role in reducing occupational strain" (Teo & Waters, 2002, p.219) as well.

Occupational Stress for Athletic Training Professionals

Recently, there have been a few research studies performed in the field of athletic training related to role strain and role complexity and their effects on occupational stress. Henning & Weidner (2008) discovered that ACIs who supervised athletic training students in their clinical education report role strain, particularly role overload and role incongruity, both of which are risk factors for decreased job satisfaction. Brumels & Beach (2008) also found when investigating collegiate athletic trainers that job

satisfaction and the inclination to stay at one's job were "negatively affected by increased levels of role ambiguity and incongruity" (p.377). Brumels & Beach (2008) also discovered that role overload had an effect on the athletic trainer's ideation to leave the field of athletic training. Lastly, Judd & Perkins (2004) stated that the multiple roles required of an ATEP Director has led to an increase in "complexity and workload" and stressed the importance to investigate the effects of these multiple roles and responsibilities on job satisfaction (p.185). To date, no study could be located that specifically focused on gender or gender roles on occupational stress among ATEP Directors.

Coping with Occupational Stress

Although studies regarding the effects of gender on occupational stress have been mixed (Vagg et al, 2002), it has been found that perceptions and coping strategies do differ according to gender (Lease, 1999). According to Narayanan et al (1999) the types of stressors, perceptions of stress as well as reactions to stress vary between different occupations and gender. Just as stress reactions vary from person to person, so too do individuals utilize different appraisal and coping mechanisms (Lease, 1999). Interpersonal conflict is one of the most common sources of stress for several occupations and this type of conflict occurs more frequently for women than men (Narayanan et al, 1999). It has also been found that men deal with stress on a more instrumental basis, whereas women deal with stress on a more emotional basis (Narayanan et al, 1999). Being a type A personality and having external levels of locus

of control negatively affected a person's ability to cope with occupational stressors (Bradley & Eachus, 1995).

The hardiness of an individual may also affect ability to cope with stress. According to the works of both Kobasa (1979) and Woods (1987), hardiness of an individual contributes to how one perceives and copes with occupational stress and is comprised of three components. These three components include: "control, commitment, and challenge" (as cited in Lease, 1999, p.288). Control can be seen as the level of autonomy an individual has in the situation, commitment is the degree of dedication to particular activities, and challenge is viewing a situation as either a threat or opportunity. Hardiness may have an indirect influence on strain and may have a buffering affect from the role stressors encountered. Sadly research on hardiness has also been mixed and its effects cannot always be supported (Lease, 1999). Other factors found which can buffer occupational stress include: support from peers/colleagues, adequate funding and supplies, as well as support from superiors and administration (Lease, 1999). Bradley & Eachus (1995) have also reported that use of logic by the employee also helped mitigate the effects of stress.

Even though the previously mentioned research investigated the management of occupational stress, majority of research was conducted thirty to forty years prior to this study. As with other dated research, careful analyses and critiques of the literature must occur to note any gaps between past and present day experiences and research, thus the importance for this study as to gain further knowledge into some of the coping strategies mobilized to manage occupational stress.

Summary

The occupational and gender structure of the athletic training profession has changed significantly since the 1950's. With the transformation that has occurred to the profession since the mid twentieth century, the educational process has also changed (Delforge & Behnke, 1999; Ebel, 1999; Prentice, 2009; Prentice 2011). Alongside the changes to the education process, so have the roles and requirements of the ATEP Directors grown and become more complex. Today, ATEP Directors are not only charged with the administration and management of the ATEP, but also responsible for teaching, maintaining accreditation, along with advising and mentoring students and sometimes professional research (Judd & Perkins, 2004).

At the same time of the changing roles of the ATEP Directors, so too has the gender composition of the athletic training profession also transformed. Since the inception of the professional organization for athletic trainers, the profession was dominated by males, and it was only until recently in 2006, when women became the majority in the NATA (NATA, 2011b). Yet women hold less than half of the ATEP Director positions in CAATE accredited programs (CAATE, *Accredited programs,* n.d.)

It is due to the changing roles within the ATEP Directors' responsibilities as well as the changing gender composition in the athletic training profession that role conflict, role overload and gender role conflict can occur. It has been demonstrated that role conflicts such as role overload and gender role conflict can affect and can lead to occupational stress (Chusmir & Kober, 1986; Chusmir & Koberg, 2001b; Henning & Weidner, 2008; Lease, 1999; Luhaorg & Zivian, 1995; Turner, 2001; Vagg et al, 2002;

Wolverton et al, 1999). Occupational stress has been shown to have significant mental and physical consequences for the individual as well as serious repercussions on an organization (Lease, 1999; Vagg et al, 2002). It is because the multiple and sometimes conflicting occupational and gender roles demanded and carried out by the ATEP Directors that it is important to investigate the influence of gender and gender role on occupational stress for ATEP Directors.

CHAPTER 3

METHODOLOGY

Introduction

There has been tremendous growth in the athletic training profession during the last sixty years (Ebel, 1999). On the heels of the growth in the profession, so too have the number of accredited ATEPs expanded and so have the roles and responsibilities of those directing the accredited programs also grown. ATEP Directors often perform multiple occupational roles simultaneously while they fulfill their employment obligations. It is with the increases in roles and responsibilities of the ATEP Director, that it has subsequently led to a rise in the occupational workload and complicated job requirements (Judd & Perkins, 2004).

ATEP Directors may experience occupational stress because of the multiplicity and combination of roles fulfilled by the position as well as a result of gender and gender roles. However, little research exists that examines the occupational stress of ATEP Directors. To this end, this study fills a major research gap. To what extent do ATEP Directors experience occupational stress and what are the contributing influences of gender, gender role, individual characteristics and program characteristics on occupational stress? The results of this study can be used by ATEP Directors and their administrators to recognize the amount of occupational stress as well as the influence of gender, gender role, personal and professional characteristics and program factors on occupational stress. As a result of this study, ATEP Directors and their administration

can become more aware of occupational stress and may be able to develop practices to mitigate and reduce the stressors.

Research Design

A survey research study (Johnson & Christensen, 2012) was used to investigate the level to which ATEP Directors experience occupational stress, how ATEP Directors self-identify according to gender roles, as well as to determine the influence gender, gender roles, personal and professional characteristics as well as program factors on occupational stress. To consider the occupational stress and to determine the occupational stress index of ATEP Directors, this study investigated seven different work-related roles as related to the ATEP Directors job roles and responsibilities. These work-related roles include: teaching and instruction, administration, advising/mentoring, accreditation, service, professional responsibilities and other related roles and responsibilities (Judd & Perkins, 2004; Perkins & Judd, 2001; Walter et al, 2009).

A survey research design was appropriate for this study as it utilized an electronic questionnaire to collect information from a sample in order to have an understanding of the influence of gender, gender role and occupational stress for the entire ATEP Director population (Johnson & Christensen, 2012). Data regarding the ATEP's programmatic information, information regarding the ATEP Director's personal and professional information, the ATEP Directors gender role self-identification using the PAQ, the levels of occupational stress as well as amount of support experienced by the ATEP Director was gathered.

Sampling Procedures

The target population for this study was all individuals who were ATEP Directors in the fall of 2011. To be considered for this study, all ATEP Directors had to be working at a CAATE accredited program and had to have their information identified on the CAATE website at the time of the study. All of the ATEP Directors found on the CAATE website were invited to participate in the study and all were contacted through email.

Sample Size and Characteristics

The target population for this research was the 367 individuals who were program directors for an athletic training education program at the time of this study. Even though there were 370 programs as of October 2011, two programs had duplicate Directors, thus the duplication resulted in the elimination of two potential members of the population. The current researcher was also an ATEP Director at the time of survey, thus she was eliminated from the sample, resulting in a total of 367 ATEP Directors who were targeted for this study. Of the 367 CAATE accredited Athletic Training Education Programs targeted, there were 172 programs with female program directors and 195 programs with male program directors (CAATE, *Accredited programs*, n.d.). At the time of the first email invitation, 5 ATEP Directors were eliminated from the survey population due to undeliverable email addresses, resulting in a maximum sample at 362. Of the 362 solicited, eighty three individuals responded to the survey. The overall response rate for this survey was 83 respondents out of 362, for 22.9%. Currently 53% of the ATEP

Directors are male and 47% are female and the response rate for this survey, when delineated according to gender, was equally distributed at a 21.5% response rate for both male and female ATEP Directors. The overall response rate for this study is comparable to the response rate (19.8%) for other online surveys where no incentives were offered (Sax, Gilmartin, & Bryant, 2003). When delineated according to gender, the response rate for females was 21.5% which was a little lower than average (26.6%) and the response rate for male was also 21.5% which was a little higher than average (13.4%) for males when comparing to other studies (Sax et al, 2003).

Instrument

A five part survey was developed for this research project. Please see Appendix A for the survey instrument. The first section of the survey investigated information for both the ATEP and the ATEP Director alike. Some of the data collected included:

- number of years certified as an athletic trainer,
- number of years of service as program director at current location as well as total,
- number of students currently enrolled in the ATEP,
- number of faculty and clinical staff who teach in the program and are part of the department,
- percentage of time spent with occupational roles,
- time spent at work,
- amount of support from spouse/partner, family, colleagues, and
- the availability and support from a mentor.

Part two of the survey included the short form, Personal Attributes Questionnaire which was developed by Spence, Helmreich and Stapp in 1974 (Beere, 1990; Personal attributes questionnaire, n.d.). The PAQ was utilized because it is a measure used to determine how an individual self-identifies according to gender roles. According to Helmreich, Spence & Wilhelm (1981), the short form of the PAQ has 8 questions for each set of 3 gender characteristics (masculine, feminine or masculine/feminine) for a total of twenty four questions. Each question is based on a 5 point scale (1-5 for this study, originally 0-4) and then total scores for each group are summed to give a total score for each category of characteristics. For this study, the total score could vary from 5-40 (originally 0-32) for each category (masculine, feminine or masculine/feminine) and have an index score of 1 to 5. The construction, analysis and psychometrics of the PAQ have also been researched (Helmreich et al, 1981). Below is the reliability information for the PAQ which was found in Beere (1990).

Table 3.1. Reliability of Personal Attributes Questionnaire (Beere, 1990)

Reliability of PAQ			
Internal Consistency Reliabilities for short form of PAQ	M = .85	F = .82	M, F = .78

Although the PAQ is an older instrument, the PAQ was chosen for this study because of its reliability and its ability to measure gender roles according to masculine or feminine traits (Beere, 1990). The PAQ is used to measure the masculine or agentic, feminine or communal as well as the masculine/feminine traits. The masculine/feminine measures are traits which are deemed desirable for one or the other sex but not both

(Ward et al, 2006). The masculine/feminine (MF) dimension was measured in the survey, however was not considered for analysis since this measurement has been typically eliminated from recent research studies due to its low internal consistency reliabilities, and because of difficulties with interpretation (Ward et al, 2006). Even though the PAQ was developed in 1974, the PAQ has continued to be used when evaluating gender role (Ward et al, 2006) and has been used in recent research (Ely & Ryan, 2008; Flett, Krames & Vrendenburg, 2009) to investigate the influence of gender roles.

The third section of the survey was developed by the researcher based on previous research (Judd & Perkins, 2004; Perkins & Judd, 2001; Walter et al, 2009) to investigate the amount of occupational stress experienced by the ATEP Directors. The major areas of occupational stress which were investigated included teaching and instruction, administration, advising and mentoring, accreditation, service, professional responsibilities as well as other roles and responsibilities related to the job. In the respectful categories, respondents were asked to rate their stress on a Likert scale from 1 to 4, with 1 indicating no stress and 4 indicating great stress. The range of scores for this category for occupational stress could range from 28 to 112 points.

The fourth part of the survey gathered demographic information about the ATEP Director. Some of the information gathered in this section included:

- age,
- gender,
- educational level,

- marital status,
- family status, and
- rank and tenure status.

The last part of the survey consisted of five open ended qualitative questions which addressed the perceptions of the ATEP Directors' professional and personal self as well as experiences with stress and coping strategies.

Data Collection Procedures

After the survey was developed and piloted, it was distributed to the population using an electronic survey program, Zoomerang®. Even though the survey was developed in Zoomerang, it was delivered via the researcher's work email, thus making the respondent's information completely confidential and non-identifiable. The first email inviting all ATEP Directors to participate in the research study was sent on November, 22, 2011. At the time of the first email invitation is when another 5 ATEP Directors were eliminated from the survey population due to undeliverable email addresses, resulting in a maximum sample at 362. Additional reminders for participation in the research survey were delivered on December 6th and 20th, 2011 and again on January 3, 2012. The response rate for each time period was as follows.

November 22, 2011 through December 6, 2011, 42 responses

December 6, 2011 through December 20, 2011, 18 responses

December 20, 2011 through January 3, 2012, 10 responses and

January 3, 2012 through January 22, 2012, 13 responses

The survey was officially closed on January 22, 2012 and a total of 83 ATEP Directors responded to the survey, which included 3 partial surveys.

After the data was collected and the survey was closed, the data was exported into Microsoft Excel®. Once in Excel®, the data was examined for missing data points within the survey as well as outliers. After a brief analysis, nine surveys were deemed unusable due to missing large amounts of data or missing critical data points (i.e. gender), resulting in 75 useable surveys. The data was then evaluated for outliers and two extreme outliers were identified and eliminated from the survey. These outliers were found in number of teachers in the program (1200) and male faculty members (810).

Coding and Recoding

Reverse Coding

The PAQ portion of the survey required six items to be reversed coded. These variables included: excitability, approval of others, feelings, decision making, crying and security. Of the six categories needing reverse coding, excitability and approval other others were the only two categories which had missing data points (one in each category). For these two categories, the data was exported into SPSS® version 19 where reverse coding occurred first and then the average score was calculated. After the average score was calculated, mean substitution (Downey & King, 1998) occurred for that missing variable again one in each category. The other four categories that needed to be recoded, but did not have missing data points were exported into SPSS® and recoded there.

Missing Data Points

Of the other PAQ categories which were missing data but did not have to be recoded, the average score was found in the Excel® and mean substitution (Downey & King, 1998) again occurred and replaced the missing data prior to exporting the Excel® spreadsheet into SPSS®. A total of 7 data points were missing from the remaining PAQ questionnaires, resulting in 9 total missing data points in the PAQ.

Occupational Stress

For the surveys which were missing one or two data points in the occupational stress (n=9), the average score was computed in the Excel® spreadsheet and mean substitution (Downey & King, 1998) occurred to replace the missing variables and then data was exported to SPSS®. The reason the mean substitution for both the PAQ and occupational stress categories were used in place of the missing data was so that the n= 75 would be consistent throughout the regression analyses. Mean substitution is used to maintain the "accuracy of the analyses" and it assumes that the missing variables is related to the other variables within that category (Downey & King, 1998, p.176).

Reliability and Internal Consistencies

After reverse coding the variables in the PAQ, a reliability analysis for the PAQM and PAQF variables was completed. Reliability analyses for the individual categories of occupational stressors including teaching, administrative, advising/mentoring, accreditation, service, professional roles and responsibilities and other roles and

responsibilities stressors were conducted. Reliability analyses for overall occupational stress and support were also conducted. Reliability values, as indicated by the coefficient alpha or Cronbach's alpha, for a study are suggested to be .70 or greater (Johnson & Christensen, 2012). All variables except one were .70 or greater for this study. The results for all the reliability analyses are located in Table 3.2.

Table 3.2 Reliabilities

Variable	Cronbach's Alpha	Cronbach's Alpha Standardized Items	N of item
PAQM	.726	.758	8
PAQF	.748	.773	8
Teaching Stress	.735	.736	3
Admin Stress	.811	.811	5
Advising Stress	.770	.771	4
Accreditation Stress	.894	.897	4
Service Stress	.831	.831	3
Prof. Responsibilities Stress	.625	.627	4
Other Roles and Responsibilities Stress	.800	.807	5
Overall Stress	.937	.936	28
Overall Support	.746	.761	4

The PAQ reliabilities as reported in Beere (1990) for the PAQM was .85, PAQF was .82 and PAQMF was .78, which is somewhat higher than the internal reliabilities for this survey but in the research by Evans & Steptoe (2002) their Cronbach alpha reliabilities were .71 for the PAQM and .78 for the PAQF. In the study by Ely & Ryan (2008), they only used the PAQF and had a reliability of .69 for their study.

Coding

Once all of the data was exported into SPSS®, the reliabilities were first determined and then the data regarding occupational stress, support and the PAQ was transformed and collapsed in order to create overall scores and indices. Since the PAQ measures gender role and is an independent variable for the study, the overall score or summed measures was divided by eight (eight variable in each category) to create an index for PAQM and PAQF to return the variables to their original measures. Subsequently, a grouping representing each of the seven occupational stress categories was created as well as an overall category for occupational stress. Since the overall occupational stress is the dependent variable for this study, it was left as a continuous variable ranging from 28-112 and was not placed into an index.

Data Analysis

Descriptive statistics regarding the ATEP Directors' information, overall ATEP information, level of ATEP Directors' occupational stress, ATEP Directors' support and gender role were analyzed. Meanwhile, the research questions for this study were inferential in nature and they were examined using multivariate linear regression with a model-building approach. The dependent variable for this study was occupational stress and the independent variables were gender and gender role as well as numerous variables regarding personal and professional characteristics and program factors. The dependent variable was continuous in nature whereas the independent variables were either ordinal, nominal, interval, or dummy coded.

Multiple regression using ordinary least squares (OLS) was chosen as the method for this research because of the ability to examine both the nature and strength of the independent variables on the dependent variable (Urdan, 2005). Ordinary least squares regression utilizes the smallest sum of squared deviations, which is used statistically to decrease incidence of errors. The smallest sum of squared deviations demonstrates where the variable lies in relationship to the regression line and delineates the differences between the predicted and actual value (Cohen, Cohen, West & Aiken, 2003; Urdan, 2005). By having a smaller standard of error, it makes for a more powerful analysis (Cohen et al 2003). Likewise with ordinary least squares regression analysis, the larger the R^2 variable, which indicates the strength of the relationship or correlation between the variables, also indicates a lower chance for error (Urdan, 2005). Lastly, the reason why the OLS model was chosen for this study is that it allows for the relationship of the independent variables on the dependent variable of occupational stress of ATEP Directors, to be determined "without regard to the causal structure and process the presumably generated them" (Cohen et al 2003, p.474)

Following the descriptive analyses, all variables were scrutinized and literature was reviewed to further determine which variables would be the best fit for the regression model. The six models were estimated and are as follows:

Model 1: Occupational stress = Gender

Model 2: Occupational stress = Gender and PAQ

Model 3: Occupational stress = Gender + PAQ+ Personal variables

Model 4: Occupational stress = Gender + PAQ+ Personal

variables + professional characteristics

Model 5: Occupational stress = Gender + PAQ + Personal variables + professional variables + institutional and program variables

Model 6: Interaction Model: Occupational stress = Gender + PAQ + personal variables + professional variables + institutional and program variables

This modeling approach was chosen to first estimate the baseline influence of gender on occupational stress (i.e., Model 1). Then, in subsequent models, additional categories or layers of variables were added to the regression equation to estimate the net influence of the additional measures. The final model (i.e. Model 6) was considered the full model and included the characteristics of the programs as well as interaction variables. This model moved far in determining whether occupational stress is more a function of individual characteristics (variable Models 1-4) or programmatic characteristics.

After reviewing the regression models, the variables found on Table 3.3 were chosen to be the best fit to represent the data studied in the regression analyses. These data were chosen as a result of the literature review of the influence of gender and gender roles, personal and occupational stressors, ATEP Director's roles and responsibilities, as well as sources for burnout for ATEP Directors (Doyle & Hind, 1998; Lease, 1999; Michael et al, 2009; Moore, 2009; Walter et al, 2009; Wolverton et al, 1999). The variables on Table 3.3 served as proxies for those indicated in Models 1-6.

To measure an ATEP Director's personal characteristics, age, education level, and the number of children at home was used. The ATEP Directors professional

characteristics included rank, tenure and years as current ATEP Director. Institutional and ATEP characteristics used included institution type, total number of students and total number of individuals who teach within the ATEP. Since multiple categorical data were part of the multiple regression analyses, dummy codes for the rank, tenure and institution variables were also created. Dummy variables allow for the use of multiple categorical data and to use either a 0 or a 1 to represent the groups (Field, 2009).

Table 3.3 Variables for Regression Models

Variables		Data	Measurement
Independent Variables • Gender Role	Personal Attributes	Likert scale Ordinal	M, F, MF
• Gender	Gender	Nominal	0-Male 1-Female
Personal Variables • Age	Chronological age	Interval/ Ratio	1-100
• Educational Level	MS, ABD, terminal	Ordinal	0-MS 1-working toward 2-terminal
• Number of children at home	Number of children at home	Ordinal	0-zero or NA 1-1 2-2 3-3 or more
Professional Characteristics • Academic Rank	Prof/Assoc/Asst	Categorical	1-Instructor 2-Asst Prof 3-Assoc Prof 4-Prof 5-Other
• Tenure Status	Tenure/non tenure/tenure track	Categorical	1-nontenure track 2-tenured track, nontenured 3-tenured
• ATEP Director Experience	Number of years of experience as ATEP Director at	Interval/ Ratio	1-100

Table 3.3 Continued

	current institution		
Institutional or Program Characteristics • Institution	Type of institution	Categorical	1-baccalaurate 2-masters 3-doctoral/research
• Size of program	Number of students in the program	Interval/ Ratio	1-100
• Faculty teaching in ATEP	Number of faculty teaching within program	Interval/ Ratio	1-100
Dependent Variable • Occupational stress	Occupational stress of ATEP Director	Likert scale Ordinal	28-112

After all the review, organization and dummy coding, multiple linear regression analyses were conducted to answer the research questions using the modeling approach.

Centering Variables

After the initial OLS regression analysis, it was determined that a potential relationship between PAQM and gender as well as PAQF and gender may exist. Relationships between PAQM, PAQF and gender were determined to exist during a correlation analysis (r=.-.015 for PAQM and r=-.361 for PAQF). Even though -.361 is a modest correlation, it is likely that multicollinearity would occur (Field, 2009) between the two interaction terms combining Gender with PAQM and PAQF as well as Gender with the interaction terms when included in the same regression equation. To decrease this likelihood, centering the variables was necessary. To decrease this likelihood, centering the variables was necessary. Centering for the PAQM and PAQF was accomplished by mean group centering. The mean group centering occurred by taking all respondent's individual scores from the PAQM and PAQF indices and then subtracting

the mean value for each of the PAQM and PAQF scores respectively (Field, 2009). New interactions variables for Gender x PAQM and Gender x PAQF variables were then created by using the centered data for the PAQM and PAQF and then multiplying by gender. The interaction variables were created in order to account for the effect of both gender and gender role in combination with each other on occupational stress (Field, 2009). In other words, the interaction between gender and gender role and its effect on occupational stress depends on both the relationship of the two independent variables as well as the strength of the gender role variable on gender (Urdan, 2005).

Summary

The purpose of this survey research study was to investigate the level of occupational stress experienced by ATEP Directors and to determine the influence of gender, gender role, personal and professional characteristics and programmatic factors on occupational stress. This survey research study determined the level of occupational stress experienced by ATEP Directors, how ATEP Directors self- identify according to gender role as well as determined the influence that gender, gender role, personal and professional characteristics and program factors have on the occupational stress of ATEP Directors. This study will start as a foundation in the study of gender role, personal, professional and programmatic characteristics effects on occupational stress.

The information for this study was gathered through the use of five part survey inquiring about ATEP Director and ATEP data, gender role using the PAQ, the level of occupational stress based on ATEP Director's roles and responsibilities, personal

demographic data regarding the ATEP Director and perceptions of the ATEP Director's professional and personal self as well as experiences with stress and coping strategies.

CHAPTER 4

RESULTS

Introduction

The purpose of this survey research study was to investigate the occupational stress experienced by ATEP Directors. This study examined the influence of gender, gender role, personal and professional characteristics well as institutional and program factors on occupational stress of an ATEP Director. This chapter presents the results from the data collected during the survey research. The first part of the chapter includes the quantitative descriptive data representing ATEP and ATEP Director characteristics as well as results from the PAQ, occupational stress and support. The second part of this chapter presents the results of the data in relationship to the research questions which uses an ordinary least squares multiple regression analyses. The next section presents results from the qualitative data regarding occupational stress and the last section of this chapter concludes with an overview and a summary of the results.

Descriptive Data Results

The study examined five topic areas to determine the influence of gender and gender role on the ATEP Director's occupational stress. These five topic area were ATEP characteristics, ATEP Directors characteristics, support, PAQ and occupational stress. The first topic area investigated was the demographic data regarding the ATEP.

ATEP Characteristics

The variables as related to the ATEP demographic information included:

- Years program has been accredited,
- Total number of ATEP Directors,
- Average length of service for ATEP Director at institution,
- Type of institution,
- Total number of students, delineated into male and female students
- Total number of teachers in the program, delineated into male and female
- Total number of faculty in department, delineated into male and female
- Total number of Approved Clinical Instructors (ACIs), delineated into male and female.

The average length of accreditation was 13.26 years, with a 3 year minimum for accreditation and 40 years for the maximum for accreditation (SD= 9.75). The average number of ATEP Directors at each institution was reported at just over two (2.3) directors during the course of the program's existence, with a minimum of 1 to a maximum of 7 (SD = 1.36). The average length of service for an ATEP Director was almost 8.58 years, with minimum year of service as 1 and the maximum years of service as 32 (SD = 6.27). When ATEP Directors were asked about the average length of service for an ATEP Director at the institution, few expressed concern regarding the extreme "standard error" or "arithmetic average" as misrepresentative in the mathematical mean for their institution. For example, one institution could hypothetically average 10 years of service with one ATEP Director serving for 19 years and the other serving for one year, with the

mean being 10, but not a true depiction of the average length of service. The skewness measure reflected that while most of the averages were in the 1-10 range, there were a few in the teens, with the range spanning from 1 to 32 years of service.

The results concerning institutional type were somewhat evenly distributed with a good representation from all three types of institutions denoted in this sample. The largest percentages of respondents were from baccalaureate institutions, followed by masters and then doctorate/research. Forty percent of the respondents were working in baccalaureate institutions, 32% were employed at masters' institutions and 28% were working for a doctorate or research institution.

The average number of students in an ATEP was 36.45 students but ranged from 8 to 133 (SD =22.76). The ATEPs averaged 14.15 male students and 22.30 female students per institution, however the range was 2 to 51 for male students (SD = 9.17) and 5 to 82 for female students (SD = 14.81). Regarding the total number of teachers or instructors within the ATEP, the average number for teachers or instructors was almost 6.51, with number of males averaging 3.27 (SD = 1.63) and female teachers averaging 3.24 (SD = 1.73). The average number of faculty members within the departments was just over 12 at 12.01 (SD = 10.27). Both male and female faculty members within a department were fairly equally represented at 6.05 (SD = 5.42) for male and 5.89 for females (SD = 6.20). Lastly, the average numbers for ACIs were almost 19.5 with males having a slight edge averaging 9.9 (SD = 5.99) when compared to women averaging 8.56 (SD= 5.19). Please refer to Tables 4.1 and 4.2 for a summation of the descriptive statistics regarding ATEP characteristics.

Table 4.1 Descriptive Statistics for ATEP Characteristics

Variable	Mean	Median	SD	Min.	Max.
Years Accredited	13.27	10.00	9.76	3.00	40.00
Number of ATEP Directors	2.33	2.00	1.38	1.00	7.00
Average length of service	8.58	7.00	6.27	1.00	32.00
Total # of students	36.45	31.00	22.76	8.00	133.00
Male	14.15	12.00	9.11	2.00	51.00
Female	22.30	18.00	15.10	5.00	82.00
Total # teachers ATEP	6.51	7.00	2.50	1.00	13.00
Male	3.27	3.00	1.63	0.00	8.00
Female	3.24	3.00	1.73	0.00	7.00
Total faculty department	12.01	9.00	10.27	1.00	47.00
Male	6.05	4.00	5.42	0.00	22.00
Female	5.89	4.00	6.20	0.00	40.00
Total # of ACIs	19.45	16.50	11.08	5.00	60.00
Male	9.90	8.00	5.99	0.00	31.00
Female	8.56	7.00	5.19	0.00	21.00

The next section of descriptive data examined variable as they related to the ATEP Director characteristics.

ATEP Director Characteristics

Variables concerning ATEP demographic information included:

- Years certified,
- Years as ATEP Director at current institution,
- Years as ATEP Director total,
- Percentage of time spent in roles,

- Hours per week,
- Gender,
- Age,
- Education level,
- Marital status,
- Number of children, and
- Number of children at home.

Regarding the demographic data concerning the ATEP Directors, most directors have been BOC certified just under twenty years at 19.60 with the minimum number of certified years at 6 and the maximum number at 37 (SD=8.19). The average ATEP Director from this sample has been the ATEP Director at their institution for 7.41 years with the minimum service at 1 year and the maximum service at 33 years (SD = 6.94). The average ATEP Director has been a director for a total of 9.00 years, with the length of total years as ATEP Director ranging from 1 to 38 (SD = 7.84). A plurality of the ATEP Directors spent their time in the teaching role of their job. If delineated into percentage of time spent performing duties related to the ATEP Director position, the average amount of time spent in each role was as follows:

- Administration: 23.11% (SD = 8.92),
- Teaching: 46.80% teaching (SD = 15.63),
- Advising/Mentoring: 10.92% advising/mentoring (SD = 6.43),
- Research: 5.98% research (SD = 8.10),
- Service: 8.24% service (SD = 4.93), and

- Clinical: 7.46% clinical (SD = 11.42).

The average hours per week commitment for an ATEP Director was just over 31 at 31.53 hours per week with minimum commitment being 2.00 hours per week and the maximum being 100 hours per week (SD = 18.3). The average age for the ATEP Director was 43.05, with the youngest being 29 and the oldest being 62 (SD = 8.59). Majority of the survey respondents either had two children (n=24) or did not have children (n=21) and either had 2 children at home (n=20) or again did not have children at home (n=28). Just over half of the respondents were male at 53.3% (n= 40) with females making up 46.7% (n = 35). Majority of the sample had their terminal degree to comprise 54.7% (n = 41) of the sample and 18.7% were working towards their terminal degrees (n= 14). An overwhelming majority of the sample were married or partnered (86.7%, n = 65). Regarding rank and tenure status, the greater part of the sample were associate professors (38.7%, n = 29) and majority were in non-tenured track positions (41.3%, n = 31). Please see Tables 4.2 and 4.3 for summary of descriptive statistics for the ATEP Director.

Table 4.2 Descriptive Statistics for ATEP Director Characteristics

Variable	Mean	Median	SD	Min.	Max.
Years certified	19.60	19.00	8.18	6.00	37.00
Years current Director	7.41	6.00	6.94	1.00	33.00
Years total as Director	9.00	7.00	7.84	1.00	38.00
% of time spent in role					
% Administration	23.11	25.00	8.92	5.00	50.00
% Teach	46.80	50.00	15.63	12.50	75.00
% Advising/Mentor	10.82	10.00	6.43	0.00	30.00
% Research	5.98	5.00	8.10	0.00	40.00
% Service	8.24	9.00	4.93	0.00	20.00
% Clinical	7.46	0.00	11.42	0.00	45.00
Hours per week total	31.53	32.75	18.93	2.00	100.00
Age	43.05	42.00	8.64	29.00	62.00
Number of children	2.24	2.00	0.97	0.00	5.00
Number of children home	1.23	1.00	1.22	0.00	5.00

Table 4.3 Descriptive Statistics for ATEP Director Characteristics

Variable	Frequency	Percent
Gender		
Male	40	53.3
Female	35	46.7
Educational level		
Masters	20	26.7
Working toward second masters	0	0.0
Working toward terminal	14	18.7
Terminal	41	54.7
Marital status		
Married and partnered	65	86.7
Other (single, divorced, separated)	10	13.3

Table 4.3 Continued

Rank		
Instructor	12	16.0
Assistant professor	17	22.7
Associate professor	29	38.7
Professor	7	9.3
Other	10	13.3
Tenure		
Nontenured	31	41.3
Tenure track, working toward tenure	15	20.0
Tenured	29	38.7

Support

The third topic area of the descriptive data considered the amount of support which the ATEP Director was receiving from various entities, including support from family and spouse, colleagues, administration and mentor. The respondents were asked to rate the amount of support they received on a scale of 0 to 5 with 0 representing no support and 5 representing a great deal of support. There was also a non-applicable (NA) indication available for selection. Majority of the respondents indicated that they received more than average support from their spouse/family with a 4.26 mean score and a median of 5 (SD = 1.04). As far as support from colleagues, the average score was 3.75, with median score of 4 (SD = 1.00). Support from administration averaged 3.37, with median score of 3 (SD = 1.23), whereas, support from a mentor averaged 2.64 with median score of 3.0 (SD = 1.77). One third of the respondents (n=25) indicated that they did not have a mentor. Since support was an independent variable for this study, an overall support index was also created. The average support index for the ATEP Director

was 3.23 (out of 5) with median of 3.0 (SD = .93). The range of support was 1.50 to 5.00. Please see Table 4.4 for support data.

Table 4.4 Support

Variable	Mean	Median	SD	Min.	Max.
Spouse and family	4.27	5.00	1.04	0.00	5.00
Colleagues	3.75	4.00	1.00	1.00	5.00
Administration	3.42	3.00	1.23	0.00	5.00
Mentor	2.64	3.00	1.77	0.00	5.00
Support Index	3.23	3.00	.93	1.50	5.00

Personal Attributes Questionnaire (PAQ)

The PAQ comprised the fourth area of data collected. The PAQ measures gender role, is an independent variable for this study, and was organized into masculine, feminine and masculine/feminine categories. The original PAQ by Spence, Helmreich and Stapp from 1974 (Personal attributes questionnaire, n.d.) used a scale of 0 to 4, whereas this survey used a scale from 1 to 5. It was decided to recode but not rescale the PAQ to from 0 to 4 to 1 to 5 to rid it of the "0" value, which often indicates the absence of a trait. For the original PAQ, the "0" score is simply the lowest response value, so the resultant recode "1" is the lowest response and "5" is the highest response for this survey. The overall scores for this survey could range from 8 to 40. Since the PAQ serves as an independent variable for this study, indices were created so as to return the variable back to its original scale or coding and for interpretation of the data.

The following components comprised the PAQ for masculine, agentic or instrumental traits (PAQM): dependence, active/passive, competitive, decision making, tenacity, self-confidence, inferior/superior, and pressure. The results from this survey indicated an average score of 31.98 and median of 31.00 (SD= 3.87) with the range of scores from 24.00 to 40.00. A PAQM Index was created by taking the total score and dividing by eight. A PAQ Index was created in order to return the measure to its original scale. The average score in the PAQM index was 4.00, with a median of 3.99 (SD= .48). Index scores for the PAQM ranged from 3.00 to 5.00 and with the greater the score, indicating the more agentic or instrumental the gender role or in other words, the more masculine-like the individual's gender role.

Emotion, devotion, rough/gentle, helpful, kind, awareness of feeling, understanding, and relationships comprised were the traits measured for the feminine traits (PAQF). The overall score results for the PAQF from this survey indicated an average score of 31.06 and a median score of 31.00 (SD = 3.61). A PAQF Index was also created to return to original scale and the average score on the PAQF index was 3.88, with a median of 3.88 (SD = .45). The PAQF scores ranged from 15.00 to 38.00 whereas the index scores for the PAQF ranged from 2.88 to 4.75, with the greater the score, indicating the more communal or expressive the gender role, or in other words, the more feminine-like the individual's gender role.

When asked if the PAQ was consistent between personal and professional selves and behaviors, on a scale of 1 to 5, 1 being very inconsistent to 5 being very consistent, the average response was 4.41, with a median of 4.00 and a mode of 5.00 (SD = .64),

ranging from 2.00 to 5.00. When the PAQM Index and the PAQF Index were delineated according to gender, the male respondents (n = 40) averaged 4.00 on the PAQM Index, with a median of 4.00 (SD = .54) and averaged 3.76 on the PAQF Index, with a median of 3.75 (SD = .43). On other side, the female respondents (n=35) averaged 3.99 on the PAQM Index, with a median of 3.88 (SD = .42) and on the PAQF Index averaged 4.02, with median of 4.13 (SD = .44). Please refer to Table 4.5 for information regarding the PAQ. Overall the average score on the Total PAQM was a little higher than the average score on the PAQF for the respondents.

Table 4.5 Personal Attributes Questionaire

Variable	Mean	Median	SD	Min.	Max.
Total PAQM	31.98	31.00	3.87	24.00*	40.00
PAQM Index	3.99	3.88	.48	3.00**	5.00
Total PAQF	31.06	31.00	3.61	23.00*	38.00
PAQF Index	3.88	3.88	.45	2.88**	4.75

*range for total 8-40
**range for index 1-5

Occupational Stress

The fifth topic area investigated during the descriptive statistical analyses was occupational stress. This survey investigated different categories of occupational stress, which included teaching, administration, advising/mentoring, accreditation, service, professional responsibilities as well as other roles and responsibilities. The respondents were asked to rate their stress on a scale of 1 to 4, with 1 indicating no stress and 4

indicating great stress. A non-applicable option was also available for each question. Each category was then summed for a total score for each particular category. Since occupational stress was the dependent variable for this study, an overall occupational stress score, which is continuous in nature, was also created. The first 7 subcategories of stress will be discussed first and then the overall occupational stress measure will be discussed.

Teaching and Instruction Results for the teaching stress category (teaching, preparation and feedback) included a mean of 6.43 and a median and mode of 6.00 (SD= 1.93). Scores in this category ranged from 3.00 to 10.00 out of 12.00. There were no non-applicable answers indicated.

Administration For the administration category (curriculum, recruiting faculty, evaluation and assessment, organize clinical education and recruiting students), the mean score was 11.93 with a median of 12.00 (SD = 3.46). The scores in this category ranged from 5.00 to 20.00 out of 20.00. Overall there were 18 non-applicable answers in this category.

Advising and Mentoring In the advising and mentoring stress category (advising coursework, mentoring career goals, guiding student research and discipline) the average score was 8.29, with a median of 8.00 (SD = 2.40) The scores in this category ranged from 4.00 to 13.00 out of 16.00 total points. There were 17 non-applicable answers indicated in this category.

Accreditation The accreditation stress category (CAATE administration, maintaining accreditation, implementing standards and deadline) averaged 11.43 and a median of 12.00 (SD = 2.79). The scores ranged from 4.00 to 16.00 out of 16.00 total points. There were no non-applicable answers in this category.

Service In the service stress category (service to campus, communication with colleagues and service to patients), the average score was 5.03 and a median score of 5.00 (SD = 1.87). The scores in this category ranged from 2.00 to 9.00 out of 9.00 total points. Thirty two answers in this category were indicated as non-applicable.

Professional Responsibilities Regarding professional responsibilities (professional organizations, professional research, publications and presentations and tenure and promotion), the average score was 8.29, with a median score of 9.00 (SD = 3.83). Scores ranged from 1.00 to 15.00 out of 16.00. This category had 61 non-applicable answers indicated.

Other Stressors Lastly in the other roles and responsibilities category (overall workload, work unrelated to ATEP, salary and benefits, resources for ATEP and time conflicts between work and personal life), the average score was 13.31, with a median (SD = 3.05). The scores ranged from 5.00 to 19.00 out of 20.00. One answer was indicated as non-applicable in this category.

Overall Occupational Stress The total possible number range on the Overall Occupational Stress score was 28 to 112 points. The average score was 64.70, with a

median of 65.00 (SD = 11.99). Scores ranged from 37.00 to 91.00 out of 112 possible points. Please see Table 4.6a for a summation of the occupational stress data.

Table 4.6a Occupational Stress

Variable	Mean	Median	SD	Min.	Max.
Teaching and instruction	6.43	6.00	1.93	3.00	10.00[a]
Administration	11.93	12.00	3.46	5.00	20.00[b]
Advising and mentoring	8.29	8.00	2.40	4.00	13.00[c]
Accreditation	11.43	12.00	2.79	4.00	16.00[d]
Service	5.03	5.00	1.87	2.00	9.00[e]
Professional responsibilities	8.29	9.00	3.83	1.00	15.00[f]
Other roles and responsibilities	13.31	14.00	3.05	5.00	19.00[g]
Overall occupational stress	64.70	65.00	11.99	37.00	91.00[h]

[a] out of 12.00, [b] out of 20.00, [c] out of 16.00, [d] out of 16.00, [e] out of 12.00, [f] out of 16.00, [g] out of 20.00, [h] out of 112

Table 4.6b presents a standardized metric in which to order the occupational stress measures in terms of the relatively most-to-least stressful. This metric is presented as a percentage, which calculates the extent to which the mean value for each stress measure approaches its empirical maximum. This is accomplished through the following equation: (mean/maximum) x 100.

In interpreting the values in Table 4.6b, it is important that the values represent relative stress levels when compared to each other and, most importantly, the overall

stress measure. For the overall stress measure, the mean value of 64.70 is at 58% of it empirical maximum value of 112. Therefore, for the individual measures of stress, values below 58% is less than average stress (where lower % = lower relative stress levels), and those above 58% are more than average stress (where higher % = higher relative stress levels).

As shown in Table 4.6b, three measures of stress have relatively high values, representing greater-than-average stress. The greatest of these is stress from accreditation with a mean value that is 71% of it possible maximum. Following this is stress from other roles and responsibilities at 67% and stress from administration at 60%. The least of the occupational stress were from advising and mentoring and professional responsibilities both at 52% and service at 42%. It is interesting to note the stark contract between occupational stressors from accreditation (71%) and service (42%), differing by almost 30%. This difference indicates that accreditation is the area of concern which creates the highest relative occupational stress level for most ATEP Directors.

Table 4.6b Percentage of Occupational Stress

Variable	Mean as percent of empirical maximum
Accreditation	71%
Other Roles and Responsibilities	67%
Administration	60%
Overall Occupational Stress	58%
Teaching and Instruction	54%
Advising and Mentoring	52%
Professional Responsibilities	52%
Service	42%

Research Questions

In order to determine significance in the ordinary least squares (OLS) regression analyses, a predetermined p value of .10 was chosen by the researcher. Typically an alpha level of p=.05 is used in statistical analyses within the social sciences (Urdan, 2005), however the researcher may set the alpha level at a different level (Asraf & Brewer, 2004) to decrease errors (Urdan, 2005). For this research, an alpha value of p=.10 was chosen to due to decrease the risk of committing a Type II error and due to the small sample size. Fields (2009) states that the maximum probably for a Type II error should be no greater than an alpha of .20 and by reducing the risk for Type II errors, it decreases the risk of stating the effect of the independent variables on the dependent variable did not occur, when in fact it did (Field, 2009). However, by increasing the alpha value to p =.10, that also increases the risk of committing a Type I error (Asraf & Brewer, 2004). A Type I error occurs when "rejecting the null hypothesis when in fact the null hypothesis is true" (Urdan, 2005, p.73). Additionally, statistical tests of significance are strongly influenced by sample size such that an effect that fails to be significant at a specified level alpha in a small sample can be significant in a larger sample (Moore, McCabe & Craig, 2012). This suggests that relatively large effects may not be significant at the industry-standard alpha level of .05 when using small samples (Healey, 2011). By using an alpha level of .10, a statistically significant coefficient provides good evidence of some relationship between the independent and dependent variables, in light of the rather small sample used in this study. The use of the .10 alpha level in this study certainly indicates that future research on the same topic would benefit

from a larger sample size. This is because the probability of a Type I error is increased with higher alpha levels. However, all statistical tests in this study used the more conservative two-tailed t-distribution even though directional hypotheses were elaborated (Healey, 2011). Significance for the OLS regression analyses for this study was also demonstrated at the .05 and .001 levels.

OLS Regression Analyses

In order to answer the seven research questions in this study, an OLS multiple regression with a modeling approach was utilized. The first research question asked "is gender associated with the occupational stress for ATEP Directors?" To this end, model 1 examined the influence of gender on occupational stress. For model 1, the R^2 value was .054 and the adjusted R^2 value was .041 meaning that 4% of the variance in occupational stress is explained by gender. The unstandardized coefficient was reported as b = 5.529 ($p < .05$), meaning that on average, women score 5.5 points higher on the occupational stress scale compared to their male counterparts. Occupational stress was significantly related to gender. The model statistic $F(1,73) = 4.140$, $p = .046$ confirms the finding that occupational stress is significantly associated with gender.

Model 2 addressed the second research question of whether occupational stress is associated with gender role among ATEP Directors. For model 2, the R^2 value was .186, with the adjusted R^2 of .151 meaning that 15% of the variance in occupational stress explained by gender and gender role (PAQM Index and PAQF Index). The unstandardized coefficient was reported as b = 5.11 ($p < .10$) for gender and -9.26 ($p < .01$) for PAQM Index meaning that on average, women scored 5.11 points higher on the

occupational stress scale when compared to males after controlling for influence of gender role. The unstandardized coefficient for PAQM also demonstrates that for every 1 point increase on the PAQM Index, the occupational stress decreases by 9.26 points. Occupational stress was significantly related to gender and the PAQM Index. The model statistic $F(3,71) = 5.398$, $p=.002$ indicates that as a combined group, the independent variables are significantly associated with occupational stress. In conjunction with the individual coefficient t-tests, we have further evidence that occupational stress is significantly associated with gender and PAQM.

The third research question investigated the association between occupational stress and the ATEP Director's personal characteristics. To this end, Model 3 regressed occupational stress on gender, gender role, and the ATEP Director's personal characteristics of age, educational level and the number of children at home. The R^2 value was .197 and the adjusted R^2 value was .126, again meaning that approximately 13% of the variance in occupational stress can be explained by gender, gender role and ATEP Director personal characteristics. The unstandardized coefficient was reported as b = -9.626 ($p< .01$) for PAQM Index, meaning for every one point increase on the PAQM Index, stress decreases by 9.63 points. Occupational stress was significantly related to PAQM Index with all other variables in this model being non-significant. This is an important finding in Model 3, that is, gender goes from significant to non-significant between Models 2 and 3. This suggests that once you control for the characteristics of ATEP directors, levels of occupational stress do not depend on gender any more. The model statistic $F(6,68) = 2.778$, $p=.018$ indicates that as a combined group, the

independent variables are significantly associated with occupational stress. In conjunction with the individual coefficient t-tests, we have further evidence that occupational stress is significantly associated with PAQM.

Model 4 evaluate the fourth research question. The fourth research question investigated if occupational stress was associated with professional characteristics of an ATEP Director. To this end, Model 4, regressed occupational stress on gender, gender role and ATEP Director personal characteristics also evaluated the ATEP Director's professional characteristics. The professional characteristics that were addressed in model 4 were rank and tenure status as well as years as current program director. Dummy variables for rank and tenure were also included in this model. The full professor dummy variable was used as the reference for rank whereas the tenured dummy variable was used as the comparison for tenure. For model 4 the R^2 value was .238 and the adjusted R^2 was .076 which means only 7% of the variance in occupational stress could be explained by the variables in the model. The unstandardized coefficient was reported as b= -9.837 (p< . 05) for PAQM Index. The interpretation for the unstandardized coefficient is that with every one point increase on the PAQM Index, stress decreases by 9.84. Occupational stress was significantly related to the PAQM Index, with other variables non-significant. The model statistic $F(13,61) = 1.466$, $p = .157$ confirms non-significance for the entire model. This *F*-test shows that as a group the predictor variables are not associated with occupational stress. This occurs because most of these individual variables are not significantly associated with occupational stress

in a bivariate relationship. Indeed, the individual t-test revealed that only the PAQM Index is associated with occupational stress.

Lastly, research questions five and six investigated if occupational stress experienced by ATEP Directors was influenced by gender, gender role, ATEP Director personal characteristics, professional characteristics and institutional and program characteristics. To this end, Model 5 regressed occupational stress on gender, gender role, the ATEP Director's personal and professional characteristics as well as institutional and program characteristics. The institutional and program characteristics included in this model were type of institution, the total number of students enrolled and the total number of individual who teach within the ATEP. A dummy variable was used for type of institution to reference baccalaureate and masters institutions to doctoral and research institution. For model 5 the R^2 value was .293 and the adjusted R^2 value was .082, thus only 8% of the variance in occupational stress could be explained by the model. The unstandardized coefficients were recorded as the following: b = 5.90 ($p < .10$) for gender, -10.06 ($p < .05$) for PAQM Index and 0.12 ($p < .10$) for total number of students in the program. These unstandardized coefficients mean that women score 5.9 points higher on the occupational stress scale when compared to their male counterparts. These unstandardized coefficients also mean that for every 1 point increase on the PAQM index, occupational stress decreases by 10.06 points and for every one student increase in total student enrollment, occupational stress increased by .116 points. The model statistic $F(17,57) = 1.390$, $p = .176$ confirms non-significance for the entire model however, gender becomes statistically significant again, even after controlling for the influence of

the new variables investigated in Model 5. This f-test again demonstrates that as a group the predictor variables are not associated with occupational stress. This occurs because most of these individual variables are not significantly associated with occupational stress in a bivariate relationship. Indeed, the individual t-test revealed that both gender and PAQM Index is associated with occupational stress. So, in the end, gender returns as a significant predictor of occupational stress after controlling for all studied variables. Please see Table 4.7 for the summary of the regression analyses and models.

OLS Regression with Interaction Terms

As elaborated in Research Question #7, this study examines whether the influence of gender roles on occupational stress vary between female and male ATEP Directors. There is both substantive and empirical support for this line of inquiry. Substantively, the occupational and gender structures of the athletic training profession have changed significantly. Alongside these transformations, changes have also occurred in the athletic training educational process. As result, the roles and requirements of the ATEP Directors have grown and become more complex which suggests that occupational stress may be highly gendered. Empirically, the regression results in Table 4.7 provide evidence of a twin gendered effect on occupational stress, where both biological sex and social gender roles independently influence stress. The goal of the interaction analyses was to determine whether the gender variables combine to influence stress.

Table 4.7 Unstandardized Coefficients for Occupational Stress for ATEP Directors

Variables	Model 1 b(SE)	Model 2 b(SE)	Model 3 b(SE)	Model 4 b(SE)	Model 5 b(SE)
Gender (1=female)	5.529 (2.718)**	5.108 (2.687)*	4.375 (2.957)	4.412 (3.269)	5.899 (3.389)*
PAQM Index		-9.260 (2.790)***	-9.626 (2.889)***	-9.837 (3.252)***	-10.062 (3.281)***
PAQ F Index		1.115 (3.129)	1.163 (3.224)	-.076 (3.650)	-2.900 (3.916)
Age			-.146 (.161)	-.288 (.226)	-.275 (.226)
Educational level			-.222 (1.052)	-.987 (.447)	-1.113 (1.382)
Children at home			-.358 (1.274)	-.348 (1.402)	-.726 (1.460)
Rank (Professor reference)				---	---
Other				-4.004 (8.435)	-6.770 (8.528)
Instructor				-1.347 (7.854)	-2.790 (7.934)
Asst. professor				-2.031 (7.370)	-3.908 (7.412)
Assoc. professor				-4.857 (5.638)	-7.365 (5.787)
Tenure (Tenure reference)				---	---
Nontenure				-6.051 (6.006)	-5.089 (6.117)
Tenure track				-3.629 (5.432)	-2.729 (5.478)
Years as current PD				-.006 (.260)	-.028 (.267)
Institution (Doctoral reference)					---
Baccalaureate					2.024 (3.878)
Masters					3.879 (4.011)
Total students					.116 (.069)*
Total teach within ATEP					.078 (.600)
Constant	62.121***	95.010***	103.983***	124.402***	130.630***
R	.232**	.431***	.444**	.488	.541
R^2	.054	.186	.197	.238	.293
Adjusted R^2	.041	.151	.126	.076	.082
% Change in R^2	.054	.186	.197	.238	.293
df	1	3	6	13	17

p<.10*, p <.05**, p<.01***

The interaction or cross-product terms were created by crossing Gender with both measures of gender roles—PAQM and PAQF—shown as variable names "Gender x PAQM" and "Gender x PAQF" in Table 4.8. These cross-product terms are likely to be highly correlated with one or both of the lower-order variables used to create the interaction term. For example, it is likely that the Gender x PAQF variable will be highly correlated with Gender and/or PAQF variable. This is a form of multicollinearity and makes it difficult to separate the effects of the lower-order and interaction terms. To combat this multicollinearity, many suggest the practice of the mean centering of the continuous variables (i.e., PAQF and PAQM) prior to the creation of the cross-product term (Aiken & West, 1991; Jaccard, Wan, & Turrisi, 1990). That strategy was adopted in this interaction analyses.

The results of the interaction analyses are in Models 2 – 5 in Table 4.8. The results in Model 2 show that there is no significant interaction between Gender and PAQM, and this lack of statistical significance continues through to Model 5. This indicates that the negative and significant association between PAQM and occupational stress does not differ significantly between female and male ATEP Directors. For the other interaction term, the results in Model 2 do return a negative and statistically significant coefficient, which continues through Model 4. This finding suggests that the positive association between PAQF and occupational stress is significantly less for female ATEP Directors than for their male counterparts. However, in Model 5, the interaction term crossing Gender and PAQF fails to reach statistical significance after controlling for all of the other study variables. The results in Model 5, therefore, provide

no statistical evidence that any association between PAQF and occupational stress differs substantially between males and females. However, the results in the previous models do indicate that such an interaction relationship may exist. Taken altogether, it is clear that the presence or lack of a significant interaction between Gender and PAQF depends strongly on which additional variables are in the regression equation. This suggests that further statistical analyses would be required to untangle the potential suppressor, inflator, and control relationships among all of the independent variables in the equation. However, given the small sample size, such analyses may not be possible in this study. That is, the typical post hoc and meta analyses used to identify these relationships are difficult with small sample sizes due to low power and potentially large Type II errors (Cohen et al, 2003).

Qualitative Descriptive Data

To better understand and contextualize the regression analyses, several open-ended questions were asked of the respondents. These five open ended questions addressed perceptions of the ATEP Directors' professional and personal self as well as experiences with stress and coping strategies.

When asked if the PAQ traits differ from personal to professional life, there were 30 responses total and an overwhelming majority (n=26), said no, there were no differences. However, the three individuals that did believe there was a difference stated the following. According to one, "I think that at work I have to be a little more strict than I would like to be. Some of my students find me intimidating, and I really do not want

that to be the case". Another responded with "I think my behaviors are different based on which part of the job I am doing. I am different in the classroom than in the clinical setting versus office visit or discipline meeting." Lastly, another replied by stating "yes, as a female working with all males, I feel I have to be more aggressive and a leader not dependent on others where at home I feel I can be myself and act differently".

The second open ended question asked the respondents to share examples of how he or she copes with work-related stress. One of the major themes for coping with work related stress from this sample included exercise. Over half of those who responded (N=36) stated that exercise helps them cope with stress. Other themes of coping with stress included spending time with family, talking with significant others and trusted colleagues, hobbies (reading, music, games), good time management, setting goals and priorities as well as maintaining faith, perspective and a positive attitude and setting limits on work (not taking work home, leaving campus for lunch).

The next open ended question asked if the individual believed there were any factors which influence how he or she experiences stress. The themes which influence how one experiences stress were more diverse but some of the more popular themes include the following: others creating stress, personality, time of year, faith, emotional and physical fatigue, past experiences, complexity of position, number of stressors and other time commitments outside of work.

Table 4.8 Unstandardized Coefficients for Occupational Stress for ATEP Directors Using Centered Data

Variables	Model 1 b(SE)	Model 2 b(SE)	Model 3 b(SE)	Model 4 b(SE)	Model 5 b(SE)
Gender (1=female)	5.529 (2.718)**	5.165 (2.655)*	4.199 (2.910)	4.301 (3.216)	5.448 (3.391)
PAQM		-11.344 (3.554)**	-12.465 (3.721)***	-12.691 (4.063)**	-12.045 (4.144)**
Gender x PAQM		3.037 (5.773)	4.693 (6.172)	4.869 (6.384)	3.190 (6.609)
PAQ F		7.321 (4.451)	7.927 (4.554)*	6.776 (4.960)	3.288 (5.507)
Gender x PAQF		-12.093 (6.213)*	-13.044 (6.329)**	-13.341 (6.693)*	-11.197 (7.036)
Age			-.192 (.161)	-.350 (.225)	-.333 (.229)
Educational level			-.262 (1.073)	-.852 (1.329)	-.966 (1.419)
Children at home			-.406 (1.263)	-.426 (1.387)	-.815 (1.465)
Rank (Professor ref.)				---	---
Other				-2.906 (8.319)	-5.285 (8.549)
Instructor				.060 (7.759)	-1.060 (7.972)
Asst. professor				-.816 (7.275)	-2.447 (.7.437)
Assoc. professor				-4.377 (5.552)	-6.353 (5.795)
Tenure (Tenure ref)				---	---
Nontenure				-6.110 (5.925)	-5.348 (6.104)
Tenure track				-4.462 (5.360)	-3.600 (5.480)
Years as current PD				-.071 (.261)	-.064 (.273)
Institution (Doctoral ref)					
Baccalaureate					1.146 (3.904)
Masters					3.341 (4.019)
Total students					.085 (.072)
Total teach within ATEP					.190 (.602)
Constant	62.121***	63.086***	73.113***	86.857***	81.583***
R	.232**	.478**	.496**	.536	.569
R^2	.054	.228	.246	.287	.324
Adjusted R^2	.041	.172	.154	.106	.091
% Change in R^2	.054	.228	.246	.287	.324
df	1	5	8	15	19

p<.10*, p <.05**, p<.01***.

When asked to reflect upon which factors influence how one copes with stress, numerous survey respondents replied that these factors were similar to how he or she experiences stress. Some of the themes found that influenced how one copes with stress included: faith, perspective, attitude and personality, sleep, time commitments for work and personal life as the ability to speak with a support network (friends, significant other, colleagues, and administration).

Lastly, the participants were asked if they believed their gender influences how he or she experienced and coped with work related stress. The results came back with mixed reviews. Out of 55 responses, 30 believed that no, gender did not influence stress or coping strategies and 18 respondents stated yes, that gender influenced stress and coping. The other responses were mixed and situational and personality dependent. Some examples of comments made are included below.

"No, I see each person as having individual makeup and personal characteristics".

"Yes, some expectations of my generation of how males handle stress interfere with how I would like to do things. Culturally it is sometimes hard".

"No, not gender, just feeling and emotions. People take things too personally".

"Yes, both treated differently as a female and sometimes my perception of that treatment".

"I believe I am wired to solve problems. I am not wired (very well) to simply

"feel" emotions from others. I believe some of this may be due to my gender but I am not certain. After all, I have only been this gender".

"Yes, I believe that females and males do experience stress differently, but I believe as a female I have a wonderful outlet of talking things out and I have a workout partner that I can talk to as well as female colleagues that help me work through my struggles. I don't think males are as free to sit down and communicate how they are feeling and why. They seem to bottle it up more. I'm glad I can talk about it!"

"Yes, I am expected to be always there, always serving regardless of personal obligations, while the previous program director got away with all kinds of excuses because she was female and was expected to have family responsibilities. This inequality frustrates me".

"Absolutely – as the research says. Women are more emotional than men, generally. So, we lead with more emotion. As soon as we attempt to be less emotional, we (are) labeled as ….something different and rude than what strong male leaders get labeled as. Specifically, strong male leaders get labeled as good leaders, strong females leaders run the risk of getting labeled as a '_itch'. Enough said!"

"No, I believe there are people of both genders who deal with stress very well and other of both genders who do not handle stress well"

"Maybe. I seem to be more emotional in positive situations (excitement, joy, etc.) as well as in some student discipline situations (disappointment). However, this may be driven by my passion for my students and their success rather than my gender".

Summary of Data Analysis

Eighty three individuals completed the survey and 75 surveys were deemed useable for this study. Of the useable surveys, 40 males and 35 females were included in this sample. The results from this survey and research study were delineated into quantitative data using ATEP characteristics, ATEP Director characteristics, support, PAQ, occupational stress and as well as qualitative data regarding how individuals experience and cope with occupational stress. Ordinary least squares regression analyses answered the research questions.

According to the survey results, the average number of years an ATEP was accredited was 13 year with 36.5 students in each program and ATEPs have 6 individuals who taught within the curriculum. The ATEP Directors in this survey have been a certified athletic trainer for an average of 19.6 years and has been the ATEP Director at the current institution for 7.41 years. The average age for the ATEP Director was 43.05 and 28% of the ATEP Directors not having any children ad 37.3% did not have children at home. Majority of the ATEP Directors were married or partnered, had terminal degrees, were in non-tenured track positions and held the rank of associate professor. The support the ATEP Director received from family, spouse or partner was the highest at 4.27 out of 5, whereas the least amount of support came from their mentor with 2.64 out of 5. One third of the respondents to this survey indicated that they did not have a mentor.

The PAQ measured gender role and the average PAQM Index score was 4.00 and average PAQF Index score was 3.88. When delineated according to gender males

averaged 4.00 on the PAQM Index and 3.76 on the PAQF Index, whereas the females averaged 3.88 on the PAQM Index and 4.02 on the PAQF Index. Lastly the average score on the occupational stress scale 64.70 out of a possible 112 points. When reviewing the seven categories which comprised the overall occupational stress scale, the accreditation category has the highest score averaging 11.43 point out of 16.00.

When the respondents were asked if there was a difference between their professional and personal PAQ traits, an overwhelming majority said no. Most of the respondents cope with occupational stress by exercising, spending time with family and being active with hobbies. The factors which were believed to influence the respondents stress was when other create the stress, personality and the time of year. Some of the factors which were believed to influence coping with work related stress included faith, perspective, attitude and personality. Finally when asked if gender influenced how one experiences and cope with work related stress, 30 respondents said no, 18 respondents said yes and 7 respondents said that it was situational dependent.

Lastly, multiple regression analyses using ordinary least squares and a modeling approach found that a significant relationship existed between occupational stress and the PAQM Index. Significance for gender was also found in the model one; however the significance for the PAQM Index and occupational stress was continued through all four models. Since there was significance in the early OLS models, a correlation between the PAQM and PAQF was executed and determined that there was a significant relationship between PAQM and PAQF. It was also determined that an interaction between gender and PAQ existed thus, centering of data occurred to account for those interactions. It is

interesting to note that earlier gender effect on occupational stress in model 1 and 2 is entirely accounted for by an individual's PAQM; that is, gender role orientation is more important than biological gender, however gender re-emerged in Model 5 which means there is an extremely complex relationship between the occupational stress of ATEP Directors and the influence of gender and gender role. The regression analysis utilizing the centered data and interaction variables indicated that the PAQM operates the same for both men and women, meaning that the higher the PAQM, the lower the stress. Ultimately, the results from this study suggest that the influence of gender and gender role on occupational stress is situational dependent as well as is dependent upon the personal, employment and program variables related to the ATEP Director at that particular time and place.

CHAPTER 5

CONCLUSION

Introduction

The purpose of this survey research study was to investigate the occupational stress experienced by ATEP Directors as well as determine the influence of gender, gender role, personal and professional characteristics as well as programmatic factors on occupational stress of an ATEP Director. The results of this study demonstrated that both the perceived and experienced occupational stress for ATEP Directors were considered "average stress", however, having more masculine, agentic or instrumental traits significantly decreased overall occupational stress for both male and female ATEP Directors. Additionally, this study also discovered that after all the other programmatic and personal characteristics were accounted for, gender was also found to be related to occupational stress where women experience more occupational stress than men. The number of students in the ATEP was also found to contribute to the occupational stress of ATEP Directors, meaning as the number of students increased, so did the occupational stress increase. This chapter will discuss an overview of the study, methodology, results and discussion regarding the results. Limitations of the study, as well as recommendations for future practice and subsequent research will also be addressed.

Overview of Study

This survey research study determined the level of occupational stress experienced by ATEP Directors, how ATEP Directors self- identified according to gender role as well as determined the influence that gender, gender role, personal and professional characteristics and program factors have on the occupational stress of ATEP Directors.

It is because occupational stress can have such negative consequences on both the organization and the individual (Lease, 1999) that it was important to investigate and discern the overall occupational stress experienced by ATEP Directors as well as to discover if gender and gender role influence occupational stress for ATEP Directors. The literature regarding the influence of gender on occupational stress has been mixed at best (Vagg et al, 2002), but some studies have discovered that gender can be a predictor of stress and that gender can affect how one perceives as well as one copes with occupational stress (Lease, 1999; Speilberger & Reheiser, 1994

Gender is involved in and related to cultural systems and society and is particular to the social environment and situation in which it occurs or is displayed (Enns, 2008; Ridgeway & Correll, 2004). However, gender, "will guide behavior only to the degree that it is activated" (Deaux & Major, 1987, p.375). Gender roles on the other hand are society's beliefs regarding appropriate behaviors for men and women (Eagly & Karau, 2002). Studies on gender and gender roles are important to this current study because during the last fifty years, the occupational and gender structure of the athletic training profession has changed significantly. Alongside the transformation that has occurred to

the athletic training profession since the mid twentieth century, changes have also occurred in the athletic training educational process (Delforge & Behnke, 1999; Ebel, 1999, Prentice, 2009; Prentice, 2011). Also as result of the changes to the education process, so have the roles and requirements of the ATEP Directors grown and become more complex (Judd & Perkins, 2004). It is due to the ATEP Directors' changing roles as well as the changing gender component in athletic training, academics and management, that role conflict, role overload and gender role conflict can occur. The data collected from this study will be used to inform ATEP Directors and their administrators regarding personal and programmatic variables which can predispose an ATEP Directors to experience occupational stress.

Below were the research questions which were used to investigate the influence of gender, gender role, ATEP and institution characteristics as well as the ATEP Director's personal and professional characteristics on occupational stress.

1. Is gender associated with the occupational stress for ATEP Directors?
2. Are individual's gender roles associated with levels of occupational stress among ATEP Directors?
3. Is occupational stress associated with the personal characteristics of the ATEP Director?
4. Is occupational stress associated with the professional characteristics of an ATEP Director?
5. Is the occupational stress of an ATEP Director influenced by the institutional and programmatic characteristics of the ATEP?

6. Is occupational stress experienced by ATEP Directors influenced by gender, gender role, ATEP Director personal characteristics, employment characteristics, and institutional and program characteristics?

7. Does the influence of gender roles on occupational stress differ from men and women?

Summary of Methodology

A survey design study (Johnson & Christensen, 2012) was used to investigate the occupational stress experienced by ATEP Directors as well as to reveal the influence of gender, gender roles, personal and professional characteristics and program factors on occupational stress. The study explored overall occupational stress and investigated how gender, gender roles, personal and professional characteristics as well as program factors were associated with overall occupational stress.

A five part survey was developed for this research project. Part one included data and background information regarding ATEPs and ATEP Directors. Part two included the Personal Attributes Questionnaire (PAQ) by Spence, Helmreich and Stapp (Personal attributes questionnaire, n.d.) which was utilized to determine gender roles (Beere, 1990). Part three was an occupational stress survey asking ATEP Directors to rate their occupational stress level with the various required occupational roles for their position on a Likert scale. Part four inquired about the ATEP Directors' personal characteristics. Part five addressed perceptions of the ATEP Directors' professional and personal self as well as experiences with stress and coping strategies.

The survey was distributed to all ATEP Director via email using Zoomerang®. The names and email contact information for all ATEP Directors were located on the CAATE website. The response rate for this survey was 22.9%.

Data was analyzed using SPSS® version 19 software. Initially, descriptive statistical analysis was used to determine the ATEP Directors' demographic information, overall ATEP information, level of ATEP Directors' occupational stress, ATEP Directors' support as well as gender role identity. Meanwhile, the research questions for this study were inferential in nature and were examined using ordinary least squares multiple linear regression with a model-building approach. The dependent variable for this study was occupational stress and the independent variables were gender, gender role as well as numerous personal, professional and programmatic variables. The modeling approach was chosen to first estimate the baseline influence of gender on occupational stress (i.e., Model 1). Then, in subsequent models, additional categories or layers of variables were added to the regression equation to estimate the net influence of the additional measures. The final model (i.e. Model 6) is considered the full model and includes the interaction influences. Below the regression findings are discussed in more detail. But briefly, it was found that Gender and PAQM were the two main variables associated with occupational stress, along with the total number of students in the program. It appears that occupational stress is lower among male ATEP Directors, those with a more masculine orientation on the PAQM regardless of biological gender, and in programs with fewer students. Yet, in the interaction analyses, it does not appear that the

association between PAQM and occupational stress differs between female and male ATEP Directors.

Discussion

Below is a brief discussion of the descriptive statistics, the regression analyses as well as qualitative reports regarding the ATEP Directors' perceptions of stress and coping strategies.

ATEP Characteristics

The average length of accreditation for an ATEP was 13.26 years, ranging from 3 to 40 years. The average number of ATEP Directors at each institution was reported at just over two directors during the course of the program's existence, with a minimum of 1 to a maximum of 7. The average length of service for an ATEP Director was just over 8.5 years with length of service ranging from 1 to 32. Forty percent of the respondents were working in baccalaureate institutions, 32% were employed at masters' institutions and 28% were working for a doctorate or research institution. The average number of students in an ATEP was 36.45 students and the programs averaged 14.15 male students and 22.30 female students per institution. The total number of teachers or instructors within the ATEP averaged 6.51 and the number of faculty members within a department averaged just over 12. Lastly, the average number of ACIs per program was almost 19.5 per ATEP.

ATEP Director Characteristics

Most ATEP Directors in this survey have been BOC certified just less than twenty years at 19.60. The average length of service at current institution ATEP was 7.41 years and the average length of total time spent as an ATEP Director was 9.00 years. Almost half (48%) of the ATEP Directors' percentage of time was spent teaching with the average ATEP Director also spending 23% of their time in administration and just over 10% of their time advising and mentoring. Research comprised almost 6% of the time, service contributed to 8% of the time and clinical service made up about 7.5% of the time spent in the ATEP Directors' role. The average hours per week commitment for an ATEP Director was just over 31 hours per week. The average age for the ATEP Director was 43.05, ranging from 29 to 62. Majority of the survey respondents either had two children or did not have children and either had 2 children at home no children at home. Just over half of the respondents were male with females making up the remaining. A large number of the sample had their terminal degree and were associated professors in non-tenured track positions. Majority of the respondents were married or partnered.

Support

Majority of the respondents indicated that they received more than average support from their spouse/family with a mean score of 4.27 out of 5.00. As far as support from colleagues, the average score was 3.75. Support from administration averaged 3.37, whereas, support from a mentor averaged 2.64. One third of the respondents indicated that they did not have a mentor.

Personal Attributes Questionnaire (PAQ)

Independence, active/passive, competitive, decision making, tenacity, self-confidence, inferior/superior, and pressure were variables which comprised the PAQ M Index. The average score in the PAQM index was 4.00. Index scores for the PAQM ranged from 3.00 to 5.00 and with the greater the score, indicating the more agentic or masculine the gender role.

The PAQ F Index was comprised of emotion, devotion, rough/gentle, helpful, kind, awareness of feeling, understanding and relationships traits. The average score on the PAQF index was 3.88 and index scores for the PAQF ranged from 2.88 to 4.75, with the greater the score, indicating the more communal or feminine the gender role.

When asked if the PAQ was consistent between personal and professional selves and behaviors, on a scale of 1 to 5, 1 being very inconsistent to 5 being very consistent, the average response was 4.41. During the examination of the frequencies of the scores on the PAQM Index and the PAQF Index delineated by gender, the male respondents averaged 4.00 on the PAQM Index and 3.76 on the PAQF Index. On other side, the female respondents averaged 3.99 on the PAQM Index and on the 4.02 on the PAQF Index.

To conclude the discussion regarding the PAQ and the attributes associated with the masculinity and femininity scores, Table 5.1 contains some examples of behaviors and skills which are related to the PAQM and PAQF respectively.

Table 5.1 PAQM and PAQF Behaviors and Skills

PAQM	PAQF
Independent	Helpful
Competitive	Kind
Tenacious	Aware of feelings
Self-confident	Understanding
Stands up well under pressure	Warm in relationships

Occupational Stress

This survey investigated different categories of occupational stress, which included teaching, administration, advising/mentoring, accreditation, service, professional responsibilities as well as other roles and responsibilities. Results for the teaching stress category (teaching, preparation and feedback) included a mean of 6.43 points out of 12.00. For the administration category (curriculum, recruiting faculty, evaluation and assessment, organize clinical education and recruiting students), the mean score was 11.93 out of 20.00. In the advising and mentoring stress category (advising coursework, mentoring career goals, guiding student research and discipline) the average score was 8.29 out of 16.00 total points. The accreditation stress category (CAATE administration, maintaining accreditation, implementing standards and deadline) averaged 11.43 out of 16.00 total points. This accreditation category had the highest score out of all the categories. In the service stress category (service to campus, communication with colleagues and service to patients), the average score was 5.03 out

of 9.00 total points. Regarding professional responsibilities (professional organizations, professional research, publications and presentations and tenure and promotion), the average score was 8.29 out of 16.00. Lastly, in the other roles and responsibilities category (overall workload, work unrelated to ATEP, salary and benefits, resources for ATEP and time conflicts between work and personal life), the average score was 13.31 out of 20.00. The total possible number range on the Overall Occupational Stress score was 28 to 112 points. The average score was 64.70 and scores ranged from 37.00 to 91.00 out of 112 possible points.

In Chapter 1, the conceptual framework represented all of the seven occupational categories (based on research from Judd & Perkins, 2004; Perkins & Judd, 2001; Walter et al, 2009) as equally contributing to the occupational stress for ATEP Directors. However it was discovered during this research that the different occupational stress categories created different levels of stress for the ATEP Director. Below is the visual representation of the conceptual framework referencing the relative levels of stress per the occupational categories. These percentages represent to what extent the mean values for each stress measure approaches their empirical maximum.

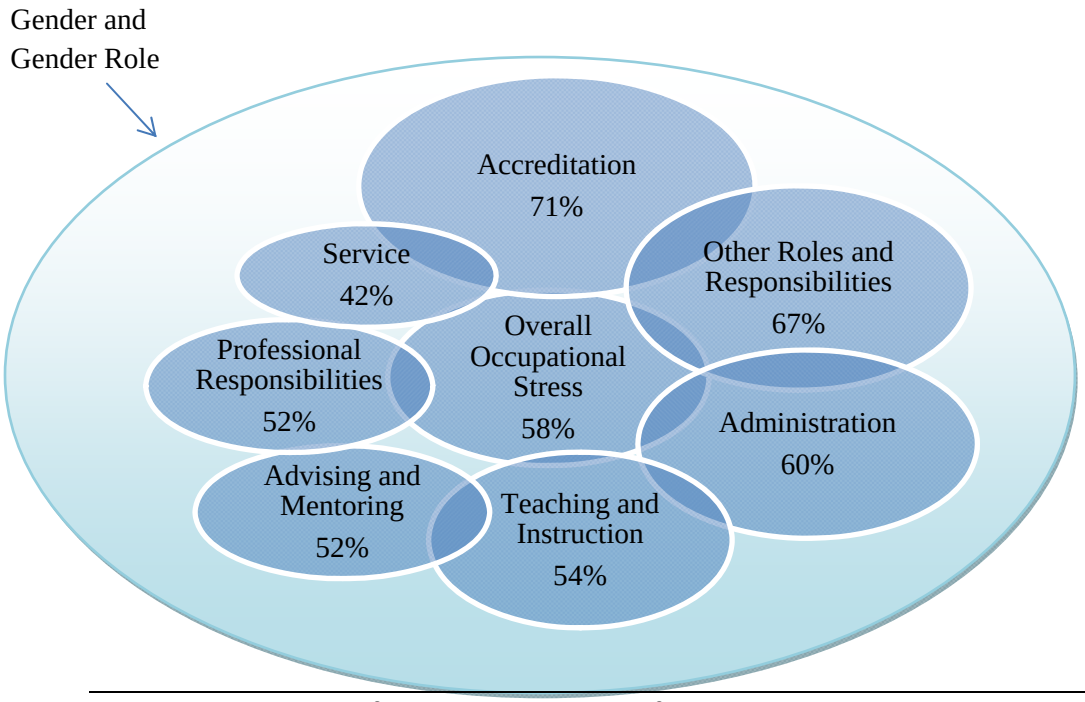

Figure 3 Percentage of Occupational Stress for ATEP Directors

Research Questions

Research Question 1: Is Gender Associated with the Occupational Stress for ATEP Directors?

Yes. The regression analyses showed that occupational stress for ATEP Directors is associated with gender, with women experiencing 5.5 more points on the occupational stress for ATEP Directors than men.

Research Question 2: Are Individual's Gender Roles Associated with Levels of Occupational Stress Among ATEP Directors?

Yes and No. The PAQM Index was found to significantly influence occupational stress for male and female ATEP Directors however the PAQ F Index was not found to

significantly influence occupational stress. This finding suggests that as both men and women increase on the PAQM Index, meaning as they become more masculine-like in their gender role expression, occupational stress decreases.

Research Question 3: Is Occupational Stress Associated with the Personal Characteristics of the ATEP Director?

No. Age, educational level and number of children at home were not found to be significantly related to occupational stress.

Research Question 4: Is Occupational Stress Associated with the Professional Characteristics of an ATEP Director?

Rank, tenure and the number of years as current ATEP Director were also not found to be significantly related to the occupational stress of ATEP Directors.

Research Question 5: Is the Occupational Stress of an ATEP Director Influenced by the Institutional and Programmatic Characteristics of the Athletic Training Education Program?

Yes and No. The type of institution and the number of individuals who teach within the ATEP did not significantly influence the occupational stress of ATEP Directors. However, the total number of students in the ATEP was found to be significantly related to the occupational stress of the ATEP Directors, indicating that as the number of students in the ATEP increases, the occupational stress also increases.

Research Question 6: Is Occupational Stress Experienced by ATEP Directors Influenced by Gender, Gender Role, ATEP Director Personal Characteristics, Employment Characteristics, and Institutional and Program Characteristics?

In the final regression analysis and after controlling for the personal, professional and institutional variables for the ATEP Director only three variables were found to significantly influence the occupational stress of ATEP Directors. The results from the OLS regression found that as the PAQM Index increased, the occupational stress for both males and females decreased. Women also experienced more stress than their male counterparts. Lastly, as the total number of students in the ATEP increase, so too did the occupational stress of ATEP Directors also increase.

Research Question 7: Does the Influence of Gender Roles on Occupational Stress Differ from Men and Women?

Lastly, the second set of OLS regression analyses analyzed whether the relationships between gender roles (i.e., PAQM, PAQF) differ between females and males. The results found that the negative and significant association between PAQM and occupational stress does not differ significantly between female and male ATEP Directors after controlling for all of the study variables. Likewise, there was little evidence found that any association between PAQF and occupational stress differs substantially between males and females.

Stress Experiences and Coping Strategies

Five open ended questions at the end of the survey addressed perceptions of the ATEP Directors' professional and personal self as well as experiences with stress and coping strategies. When asked if the PAQ traits differ from personal to professional life, there were 30 responses total and an overwhelming majority said no, there were no differences. The major themes for coping with work related stress from this sample included exercise as well as spending time with family, talking with significant others and trusted colleagues, hobbies (reading, music, games), good time management, setting goals and priorities as well as maintaining faith, perspective and a positive attitude and setting limits on work. The themes which influenced how one experiences stress were others creating stress, personality, time of year, faith, emotional and physical fatigue, past experiences, complexity of position, number of stressors and other time commitments outside of work. The factors which influenced how one copes with stress were faith, perspective, attitude and personality, sleep, time commitments for work and personal life as the ability to speak with a support network (friends, significant other, colleagues, and administration). Lastly, the participants were asked if they believed their gender influences how he or she experienced and coped with work related stress. The results came back with mixed reviews. Most of the respondents did not believe that gender influenced stress or coping strategies, however some respondents did believe that gender influenced stress and coping. The other responses were mixed and situational dependent.

The last open ended question regarding beliefs of how gender influences occupational stress and coping strategies was important to mention that it also addressed the relationship that was discovered between gender and the occupational stress in the OLS regression analyses,

especially given the fact that gender re-emerges as statistically significant in Model 5. With gender remerging as significant in the later model, it suggests that the relationship between gender and gender role and occupational stress among ATEP Directors is extremely complex and difficult. That is, the association between gender and occupational stress will vacillate and will ebb and flow depending on which variables are controlled for. The statistical finding is also in direct relationship with what was found in the qualitative reporting in the fact that gender and occupational stress will change according to variables and situation. Meaning as the situation, variables, or perception of stressors change, so does the occupational stress of the ATEP Director also change.

Ultimately, the results from this survey research study demonstrated the complex relationship of gender and gender roles on occupational stress. The study also demonstrated the importance of recognizing the potential influence of gender and gender role on occupational stress. In this study it was discovered both biological gender and social gender roles influence occupational stress. It was also discovered that once all of the other study variables are accounted for, biological gender and social gender roles still influenced occupational stress. Yet, it does not appear that there is an interaction between these two forms of gender.

Limitations of the Study

Some limitations of this study include surveying ATEP Directors asking for self-reported data which requires self-reflection and data can be affected by multiple variables such as personal biases and experiences. Furthermore, 83 ATEP Directors completed the survey for an overall response rate of 22.9% but only 75 surveys were deemed utilizable

for analysis. Because not all of the ATEP Directors responded to the survey, the sample data cannot be generalized for the entire population of ATEP Directors. Part of the survey was developed by the researcher and did not have extensive psychometric testing to indicate validity of certain measurements such as occupational stress of ATEP Directors. One particular question regarding the number of hours per week one spends on ATEP Directors duties seemed to present some difficulties. The responses ranged from 2 to 100 hours, so the question could have been worded differently for clarification specifically asking how many hours does one work per week.

Another limitation was the number of variables investigated. There were too many variables which could not be collapsed and resulted in a high adjusted R^2 value, which may indicate that the variables in later models were irrelevant or not of interest. However, after contemplation, it was decided that from a theoretical perspective, that these variables have been demonstrated in research to be influential to impact stress in one's work and personal life, so these variables were subsequently left in the models. Lastly, another limitation of this survey was that only ATEP Directors were surveyed and there was no feedback from other professionals within other allied health care educational programs.

Recommendations for Future Practice

The recommendations for future practice should be guided directly from the results of this study. To review, it was found that Gender and PAQM were the two main variables associated with occupational stress, along with the total number of students in

the program. It appears that occupational stress is lower among male ATEP Directors, for those ATEP Directors with a more masculine orientation on the PAQM, and in programs with fewer students. Yet, in the interaction analyses, it does not appear that the association between PAQM and occupational stress differs between female and male ATEP Directors.

Regarding gender, it was found that it was a significant predictor of occupational stress, such that female ATEP directors reported greater stress levels compared to their male counterparts. But the influence of gender depended on which variables were included in the regression model. For the basic models, gender emerged as a significant predictor of stress. Then, once the characteristics of the ATEP directors were controlled for, levels of occupational stress no longer depended on gender. Yet, in the final analysis (i.e., Model 5), gender was once again a significant predictor of occupational stress once the characteristics of the program were controlled for. Concerning the PAQM, the relationships with occupational stress were much more consistent and straightforward. That is, in all five of the models it was found that occupational stress and PAQM were negatively associated, such that ATEP directors with more masculine gender roles reported lower levels of stress. Even though a relationship between PAQM and occupational stress was discovered, it is extremely important to note that little relationship between PAQF and occupational stress was found in this study.

Taken together, these findings suggest that occupational stress among ATEP Directors is significantly gendered, in terms of both biological and social gender. Yet, it appears that these two gender variables operate independently to influence occupational

stress. This conclusion is supported by the lack of a significant interaction between PAQM (and PAQF) and Gender. The only non-gendered variable that emerged as a significant predictor of occupational stress was the total number of students in the program. This program characteristic suggests that ATEP directors feel more stress in larger programs.

Changes to one's personal and professional roles and expectations are inevitable and will continue to occur. These changes require a period to renegotiate role patterns or relationships and consideration if changes are realistic and feasible. Consideration must also be given to if and how change affects self and others; to the extent of the change; understand the cultural ramifications; and it may experience opposition from others, particularly those in positions of power (Turner, 2001). Whether one is adding or changing roles, learning those new roles will also be difficult and will require external support (Turner, 2001). Extant studies and literature provide some recommendations of how ATEP directors can manage these new roles and offset the gendered nature of occupational stress, as found in this current study.

Recommendations from Literature

Workshops and seminars have been suggested for those individuals experiencing changes as well as to help prepare those individuals who experience role conflict (Wolverton et al, 1999) and gender role conflict (O'Neil & Carroll, 1998). In particular, a workshop developed by O'Neil and Carroll suggests going through a "gender role journey" over the course of five phases. The first phase is acceptance of traditional gender roles, the second addresses the ambivalence about gender roles, the third and

fourth segment involve dealing with anger and becoming more active and the final stage in the gender role journey is the celebration and integration of gender roles (O'Neil & Carroll, 1988).

Additional suggestions which have surfaced in the literature aimed at decreasing gender role strain included avoiding activities which create conflict, realizing that expected behaviors are based on a social construct, (Fallon & Jome, 2007) and finding occupations and occupational roles which compliment behaviors. An example for finding complimentary roles can be done by determining which activities influence one's agentic or masculine behaviors and then finding complementary communal or feminine behaviors to offset extremes in behavior (Eagly & Karau, 2002). Chusmir & Koberg (2001a) also suggested that individuals could develop different home and work identities to help defray the influence of gender role conflict. Other suggestions to decrease occupational stress as a result of gender or gender roles have included changing hegemonic beliefs (Ridgeway & Correll, 2004) and changing gender biased policies and procedures (Perez, Hibbler, Cleary, & Eberman, 2006). Harrison et al (2009) also suggested the compartmentalization of different roles.

As with most occupationally related stressors, management and administration need to be aware of the occupational demands (Judd & Perkins, 2004). Since tenure activities and responsibilities often times are counter to family obligations (Lease, 1999) administrators in higher education can develop family friendly policies (Teo & Waters, 2002) to help decrease conflict as a result of gender and gender roles. Management at the university level can help decrease occupational stress as related to gender and gender role

by developing an university policy to address role (family and work) strain with policies geared towards junior faculty whose increase work roles coincide with increasing family roles (Elliott, 2008). Helping faculty find mentors as well as developing family friendly policies for child and elder care (Wolverton et al, 1999) would also be beneficial for both higher education administration and employees alike. Management not only needs to be aware of the ATEP Directors roles (Perkins & Judd, 2001) and the effects of multiple roles (Henning & Weidner, 2008) as related to both occupation and gender but also provide individuals with opportunities "to learn and develop healthy coping strategies" (Walter et al, 2009, p.195). According to Henning & Weidner (2008), having appropriate coping mechanisms are critical to help circumvent stressors.

Having a social support network at one's job has been shown to help reduce the negative health effects of occupational stress (Evans & Steptoe, 2002). Having a supportive Human Resources (HR) has also shown to help reduce occupational stress and strain (Teo & Waters, 2002). Lease (1999) found that women utilize a social support network to help them cope with stressors, however Perez et al (2006) suggested that women seek even more support and to find female role models and male and female mentors in order to improve equity within athletic training. Both Walter et al (2009) and Wolverton et al (1999) found that mentoring relationships were also helpful and important, thus suggested establishing mentorships to help reduce stress as well.

Recommendations from Researcher

It is the recommendation after reviewing the literature and after conducting this study that ATEP Directors need to become self-reflective of their job roles and

responsibilities. ATEP Directors need to develop an understanding of what influences their occupational stress as well as to have an appreciation of how their gender and gender role self-identification may influence the both the perceptions and actual experiences of occupational stress. ATEP Directors and their administrators alike must be cognizant that the larger the program the more occupational stress, so limiting the size of the program may also be an option for consideration. Administration may also assist the ATEP Director with the forming of supportive relationships, such as developing and establishing mentoring programs on their campus. The CAATE may also assist in the forming of a professional support network and also establish a mentoring program for ATEP Directors at the national level.

Since positive coping mechanisms are critical to have in order to manage occupational stress, the ATEP Director may also need to develop and activate other coping mechanisms. Examples of such positive coping mechanisms include getting regular exercise, establishing work and life balance and having a healthy attitude and perspective. All these coping mechanisms could mitigate potential occupational stress. It is also the researcher's belief that it would also be beneficial for both the institutions as well as the CAATE to establish workshops or seminar trainings to help new ATEP Directors understand their roles, responsibilities and expectations within their new position. So to summarize, five suggestions for influencing the occupational stress of ATEP Directors include:

1. For ATEP Directors to become self-reflective regarding their job roles and responsibilities and how their gender may influence interactions related to those roles and responsibilities.
2. To limit the number of students in the ATEP.
3. Develop supportive relationships such as mentoring programs at both the institution and the CAATE levels.
4. ATEP Directors need to develop positive coping mechanisms such as exercising, time management and finding balance between work and life commitments.
5. Development of workshops at both the institution and the CAATE level so as to educate ATEP Directors on their roles and responsibilities as well as alert, discuss, and teach ATEP Directors the skills and behaviors which have been discovered to be helpful in decreasing occupational stress.

Recommendations for Future Research

The investigation of the relationship between job satisfaction and occupational stress is recommended. In a study by Gellis (2002), the results demonstrated that there is a relationship between stress and job satisfaction and he discovered as stress increases, job satisfaction decreases. It would be interesting to determine if that same relationship existed with this particular group. Another recommendation for further analyses would be to determine the relationship of androgynous, masculine, feminine and undifferentiated gender roles on occupational stress. An additional recommendation for

another study would be to investigate the different categories of occupational stress more in depth and to determine if there were any gendered differences according to the different occupational categories, in particular accreditation stress. Moreover, it would be noteworthy to conduct further studies which investigate the mentoring component more thoroughly. Investigating network mentoring, mentoring which addresses specific areas and well as the gender component in mentoring would be extremely interesting and helpful to ATEP Directors. Lastly, it would be interesting to survey program directors from other allied health care educational programs (physical therapy, occupational therapy, and nursing) to determine if there are any gender differences regarding occupational stress across the allied health care disciplines.

Conclusions

There are many facets which affect the occupational stress for ATEP Directors. It is important for an ATEP Director to be reflective and to assess which variables influence their stress as well as to develop healthy coping strategies to mitigate the effects of occupational stress. Findings from this research indicate that Gender and PAQM were the two main variables associated with occupational stress, along with the total number of students in the program. ATEP Directors also experienced “average” stress and that they employ numerous coping strategies such as physical exercise and mobilizing social support networks in order to cope with the occupational stressors related to the position of ATEP Director.

It appears that occupational stress is lower among male ATEP Directors, those with a more masculine orientation on the PAQM, and in programs with fewer students. Yet, in the interaction analyses, it does not appear that the association between PAQM and occupational stress differs between female and male ATEP Directors. Gender, was found to be a significant predictor of occupational stress, but the influence of gender depended on which variables were included and controlled for. On the other hand, with the PAQM, the relationships with occupational stress were much more consistent and straightforward. That is that occupational stress and PAQM were negatively associated, resulting in ATEP directors with more masculine gender roles reporting lower levels of stress.

Taken together, these findings suggest that occupational stress among ATEP directors is significantly gendered, in terms of both biological and social gender. Yet, it appears that these two gender variables operate independently to influence occupational stress. The only non-gendered variable that emerged as a significant predictor of occupational stress was the total number of students in the program. This program characteristic suggests that ATEP directors perceive more stress in larger programs.

This study adds to the literature regarding the influence of gender on occupational stress. This study discovered not only the importance of investigating the influence of gender and gender roles on occupational stress for ATEP Directors, but also determined that both biological and social gender roles influence occupational stress, however they also operate independently of each other to influence occupational stress.

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APPENDICES

APPENDIX A:

GENDER, GENDER ROLES AND OCCUPATIONAL STRESS OF ATEP DIRECTOR SURVEY

You are invited to participate in this study to share your experiences as an Athletic Training Education Program Director. This survey is looking to investigate the experiences regarding occupational stressors. This survey will be asking a few questions regarding yourself, your program and institution, your gender role orientation as well as your experiences with your roles and responsibilities as an ATEP Director. The survey will take approximately20 minutes to complete.

ATEP and ATEP Director Information

Years Certified as an Athletic Trainer
Number of years?

Number of years as Program Director at current institution
Number of years?

Number of year as Program Director total
Number of years?

How long has your program been accredited?

How many program directors has there been since accreditation?

In your ATEP, what is the average length of service for an ATEPD?

Institution Type:
Baccalaureate
Masters' College and University
Doctorate/Research

Current number of students enrolled in program?
Female
Male

Current number of individuals who teach didactic courses within your program?
Female
Male

Current number of individuals in your department?
Female
Male

Current number of ACIs/CIs for your clinical experience?
Female
Male

How much time do you spend in each role (percentage to total 100%)
Administration
Teaching
Advising
Research
Campus, Community and Profession Services
Clinical Service

How many hours do you work as part of your ATEPD responsibilities per week?
Number of hours/week?

How much emotional support do you have support from your spouse/partner/family?

5	4	3	2	1	0	NA
A great deal					None	

How much support do you receive from your colleagues?

5	4	3	2	1	0
A great deal					None

How much support do you receive from your administration?

5	4	3	2	1	0
A great deal					None

How much support do you receive from your mentor?

5	4	3	2	1	0	NA
A great deal					None	

Personal Attributes Questionnaire
Of the following, please a chose a number on the scale which best describes your natural behavior and traits. For example for question 1, if you believe you are not at all aggressive, choose 1, and if you believe you are very aggressive, choose 5.

1.	Not at all aggressive	1	2	3	4	5	Very aggressive
2.	Not at all independent	1	2	3	4	5	Very independent
3.	Not at all emotional	1	2	3	4	5	Very emotional
4.	Very submissive	1	2	3	4	5	Very dominant
5.	Not at all excitable in a major crisis	1	2	3	4	5	Very excitable in a major crisis
6.	Very passive	1	2	3	4	5	Very active
7.	Not at all able to devote self completely to others	1	2	3	4	5	Able to devote self completely to others
8.	Very rough	1	2	3	4	5	Very gentle
9.	Not at all helpful to others	1	2	3	4	5	Very helpful to others
10.	Not at all competitive	1	2	3	4	5	Very competitive

11. Very home oriented	1 2 3 4 5	Very worldly
12. Not at all kind	1 2 3 4 5	Very kind
13. Indifferent to others' approval	1 2 3 4 5	Highly needful of others' approval
14. Feelings not easily hurt	1 2 3 4 5	Feelings easily hurt
15. Not at all aware of Feelings	1 2 3 4 5	Very aware of feelings
16. Can make decisions easily	1 2 3 4 5	Has difficulty making decisions
17. Gives up very easily	1 2 3 4 5	Never gives up easily
18. Never cries	1 2 3 4 5	Cries easily
19. Not at all self-confident	1 2 3 4 5	Very self-confident
20. Feels very inferior	1 2 3 4 5	Feels very superior
21. Not at all understanding others	1 2 3 4 5	Very understanding of others
22. Very cold in relations with others	1 2 3 4 5	Very warm in relations with others
23. Very little need for security	1 2 3 4 5	Very strong need for security
24. Goes to pieces under pressure	1 2 3 4 5	Stands up well under pressure

How consistent are the above characteristics consistent with your behaviors while performing your duties as an ATEP Director?

1	2	3	4	5
Very inconsistent				Consistent

Do the above traits differ from your natural behavior to your behavior in your work setting? If yes, please explain which traits differ.

Occupational Stress Level

Following are questions regarding the stress you may experience with the occupational roles and responsibilities as an ATEP Director. Please answer the questions regarding what you experience, on the average, during the academic year. Please indicate the response by indicating the appropriate number.

1	2	3	4	
No stress	Little to some stress	Average stress	Great stress	NA

Teaching and Instruction

1. Teaching in front of the classroom
2. Preparation for teaching
3. Grading and providing feedback to students work

Administration

4. Curriculum development
5. Recruiting faculty to teach within ATEP
6. Program Evaluation and Assessment (student, ACIs, CIs, faculty)
7. Organization and scheduling of Clinical Education Experiences
8. Recruitment of Students

Advising and Mentoring

9. Advising students regarding coursework
10. Mentoring student regarding future professionals goals and involvement
11. Dealing Student Issues and Discipline
12. Guiding student research

Accreditation

13. Administration with CAATE accreditation and standards
14. Maintaining accreditation standards
15. Implementing accreditation standards
16. Meeting deadlines for CAATE accreditation and standards (self-study, rejoinders, annual reports)

Service

17. Service to the campus (committees, etc.)
18. Working with colleagues and interpersonal communication
19. Service to patients (practicing clinician)

Professional Responsibilities

20. Involvement with professional organizations (national, district, state, local)
21. Conducting professional research
22. Publications and professional presentations
23. Tenure and Promotion

Other

24. Overall workload
25. Performing tasks not related to ATEP
26. Salary and benefits
27. Resources
28. Job requiring time away from personal and family time

On a scale of 1 to 4 with 4 being the greatest amount, overall, how much stress do you experience because of your current roles and responsibilities as ATEPD?

1	2	3	4	
No stress	Little to some stress	Average stress	Great stress	NA

Please give examples of how you cope with work-related stress.

Do you believe your gender affects how you cope with work related stress? If yes, please explain.

Do you believe that your gender limits your ability and options to cope with work related stress? If yes, please explain.

Demographic Information
Male
Female

Age in number of years

Educational Level
- Masters
- Terminal Degree
- Working towards Terminal Degree

Present Martial Status
- Single
- Married
- Separated and divorced
- Widowed
- Never married
- Living with a partner

Number of Dependent Children still living at home
0 1 2 3 4 5 or more

Academic Rank
- Instructor/Lecturer
- Clinical Specialists/Faculty
- Assistant Professor
- Associate Professor
- Full Professor

What is your tenure status?
- Non tenured track
- Tenured track, non-tenured
- Tenured track, tenure

APPENDIX B:

EMAIL INVITATIONS

Sent November 22, 2011

Dear Fellow Athletic Training Education Program Directors;

Hello. My name is Suzette Nynas and I am inviting you to participate in a research survey examining the association between gender and gender role on Occupational Stress in Athletic Training Education Program Directors. I am currently a doctoral candidate at Montana State University Bozeman and I am conducting this research to fulfill a requirement for my dissertation.

All Athletic Training Education Programs Directors have been invited to participate in this study; however, participation is voluntary. You have the right to not participate or may discontinue the survey at any time without penalty. The information gathered will be confidential. The data will be aggregated, and there will be no identifying information attached to your survey results. The risks of participation are minimal and the survey will take approximately 15-20 minutes to complete. The Institutional Review Board at Montana State University has approved this research project.

By continuing to the following link you are providing consent to participate in this survey. If you have any questions or concerns regarding the research you may contact me at 406-657-2351 or snynas@msubillings.edu or you may contact my faculty advisor, Dr. Carrie Myers at 406-994-4203 or cbmyers@montana.edu. If you have any questions or concerns for the Institutional Review Board, please contact Dr. Mark Quinn at 406-994-4707 or mquinn@montana.edu.

http://www.zoomerang.com/Survey/WEB22DVNBRJ7BX

I appreciate your consideration and participation in this study.

Sincerely,

Suzette Nynas, ATC, MS, ABD, LAT
ATEP Director/Assistant Professor
Montana State University Billings
1500 University Drive, PE 119
Billings, MT 59101
406-657-2351 (phone)
406-657-2399 (fax)
snynas@msubillings.edu

Follow-up Invitation
Sent December 6, 2011

Dear Fellow Athletic Training Education Program Directors;

Hello, my name is Suzette Nynas and I am currently a doctoral candidate at Montana State University Bozeman conducting this research for my dissertation.

Two weeks ago you received an email inviting you to participate in a research survey examining the association between gender and gender role on occupational stress in Athletic Training Education Program Directors. This email is a friendly reminder inviting you to participate in this study. If you have not completed the survey, I invite you to participate in this study and to proceed to the survey link at the end of this email. If you have already completed the survey, thank you for your time and participation.

All Athletic Training Education Programs Directors have been invited to participate in this study; however, participation is voluntary. You have the right to not participate or may discontinue the survey at any time without penalty. The information gathered will be confidential. The data will be aggregated, and there will be no identifying information attached to your survey results. The risks of participation are minimal and the survey will take approximately 15-20 minutes to complete. The Institutional Review Board at Montana State University has approved this research project.

By continuing to the following link you are providing consent to participate in this survey. If you have any questions or concerns regarding the research you may contact me at 406-657-2351 or snynas@msubillings.edu or you may contact my faculty advisor, Dr. Carrie Myers at 406-994-4203 or cbmyers@montana.edu. If you have any questions or concerns for the Institutional Review Board, please contact Dr. Mark Quinn at 406-994-4707 or mquinn@montana.edu.

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I appreciate your consideration and participation in this study.

Sincerely,

Suzette Nynas, ATC, MS, ABD, LAT
ATEP Director/Assistant Professor
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snynas@msubillings.edu

Follow-up Invitation
Sent December 20, 2012

Dear Fellow Athletic Training Education Program Directors;

Hello, my name is Suzette Nynas and I am currently a doctoral candidate at Montana State University Bozeman conducting this research for my dissertation.

Two weeks ago you received an email inviting you to participate in a research survey examining the association between gender and gender role on occupational stress in Athletic Training Education Program Directors. This email is a friendly reminder inviting you to participate in this study. If you have not completed the survey, I invite you to participate in this study and to proceed to the survey link at the end of this email. If you have already completed the survey, thank you for your time and participation.

All Athletic Training Education Programs Directors have been invited to participate in this study; however, participation is voluntary. You have the right to not participate or may discontinue the survey at any time without penalty. The information gathered will be confidential. The data will be aggregated, and there will be no identifying information attached to your survey results. The risks of participation are minimal and the survey will take approximately 15-20 minutes to complete. The Institutional Review Board at Montana State University has approved this research project.

By continuing to the following link you are providing consent to participate in this survey. If you have any questions or concerns regarding the research you may contact me at 406-657-2351 or snynas@msubillings.edu or you may contact my faculty advisor, Dr. Carrie Myers at 406-994-4203 or cbmyers@montana.edu. If you have any questions or concerns for the Institutional Review Board, please contact Dr. Mark Quinn at 406-994-4707 or mquinn@montana.edu.

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I appreciate your consideration and participation in this study.

Sincerely,

Suzette Nynas, ATC, MS, ABD, LAT
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Last email Invitation
January 3, 2012

Greetings Fellow Athletic Training Education Program Directors;

Thank you to all of you who have participated in the research survey examining the association between gender and gender role on occupational stress in Athletic Training Education Program Directors. If you did not have opportunity to complete the survey, I invite you to participate in this research and proceed to the link at the end of this email.

This research is being conducted as part of my dissertation at Montana State University and I believe that the information gleaned from this survey will help us better understand the context in which we work.

All Athletic Training Education Programs Directors have been invited to participate in this study; however, participation is voluntary. You have the right to not participate or may discontinue the survey at any time without penalty. The information gathered will be confidential. The data will be aggregated, and there will be no identifying information attached to your survey results. The risks of participation are minimal and the survey should take less than 15 minutes complete. The Institutional Review Board at Montana State University has approved this research project.

By continuing to the following link you are providing consent to participate in this survey. If you have any questions or concerns regarding the research you may contact me at 406-657-2351 or snynas@msubillings.edu or you may contact my faculty advisor, Dr. Carrie Myers at 406-994-4203 or cbmyers@montana.edu. If you have any questions or concerns for the Institutional Review Board, please contact Dr. Mark Quinn at 406-994-4707 or mquinn@montana.edu.

http://www.zoomerang.com/Survey/WEB22DVNBRJ7BX

Thanks again for your consideration. Happy New Year and best wishes for a great year in your program!

Appreciative

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