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Factors affecting burnout among high school certified athletic trainers

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FACTORS AFFECTING BURNOUT AMONG HIGH SCHOOL CERTIFIED
ATHLETIC TRAINERS

A Thesis Presented to
The Department of Human Performance
San Jose State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

By
Nicole L. Baker

May 2004

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ABSTRACT

FACTORS AFFECTING BURNOUT AMONG HIGH SCHOOL CERTIFIED ATHLETIC TRAINERS

By Nicole L. Baker

The purpose of this study was to examine factors affecting burnout among high school certified athletic trainers (HSATCs) in the state of California. Sixty-six females, and 37 males, participated in the study by completing the Maslach Burnout Inventory (MBI) and a demographic survey. Results of the study indicated that HSATCs experienced moderate levels of burnout across all three subscales (personal accomplishment, depersonalization, emotional exhaustion) at the time of the study. A significant relationship was discovered between the number of hours an athletic trainer works and the burnout score within the Personal Accomplishment (PA) subscale. Within the Depersonalization (DP) subscale a correlation was identified between the number of athletes and the ATCs score within the DP subscale. Burnout in HSATCs across all three subscales of burnout has increased over the last 13 years.

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CHAPTER ONE

INTRODUCTION

Individuals in all professions have been found to be at risk for burnout, more specifically individuals within helping professions have been found to be at a higher risk for burnout due to the daily interaction with patients/clients. Athletic training is one profession that involves daily interaction with athletes. Athletic training is known as the field that is concerned with the athlete's safety and health (Arnheim & Prentice, 2000). Health care professionals tend to have a higher incidence of burnout, and since athletic trainers are health care professionals they may be subject to burnout as well. Burnout in athletic training where health care is given to athletes can pose these problems:

1) deterioration in the quality of care or services provided; 2) increased job turnover; 3) increased absenteeism; 4) decrease in the morale of the employees; and 5) increased physiological and psychological strain. Therefore, the purpose of this thesis was to examine factors affecting burnout among high school ATCs when looking at the number of hours worked per week, the number of athletic teams, the number of athletes, and the number of years as an ATC.

For most athletes participation in high school sports is an important means for maintaining strength, endurance, and overall fitness (Lyznicki, Riggs, & Champion, 1999). As a result, injury is an inherent risk of any athletic participation. To enhance the safety and reduce injury risk, certified athletic trainers (ATCs) are hired at the high school level in an attempt to increase the health care provided to high school athletes. High school ATCs are generally the only trained medical staff on site who work with

minor, catastrophic, and/or emergency situations (Arnheim & Prentice, 2000). Certified athletic trainers at the collegiate level generally have a lower athlete to trainer ratio than high school ATCs, which may increase stressors placed on the high school ATC. Burnout and ATCs has been studied on the college level but research is lacking at the high school level (Acevedo, Hebert, & Hendrix, 2000; Kauk, 1990; Pitney, Ilsley, & Rintala, 2002; Tanaka, 2000; Winterstein, 1998), therefore the purpose of this thesis was to examine the factors affecting burnout among high school ATCs in the state of California.

Burnout occurs due to difficulties at work (Maslach, Schaufeli, & Leiter, 2001). Burnout is a prolonged response to chronic emotional and interpersonal stressors on the job. Burnout begins with excessive and prolonged levels of job stress, and ends when workers defensively cope with job stress by psychologically detaching. Burnout can be directly related to an individual who is apathetic, cynical, and rigid when working with people or patients (Maslach et al., 2001).

Emotional exhaustion, depersonalization, and personal accomplishment are dimensions of burnout that affect any individual who works with people on a daily basis (Schaufeli, Maslach, & Marek, 1993). When the emotional demands of work overcome the professional's resources to cope, burnout may occur.

Professionals in certain occupations have been identified to be at a higher risk for burnout because of the specific demands of their occupation (Maslach, 1982). Occupations with increased levels of burnout have been labeled people-oriented or caregiving occupations. Maslach (1982) credits the elevated level of burnout with individuals

in the helping professions to high workloads, high interactions with people, organizational demands, a hostile work environment, and an inability to cope with stressors in the work environment.

Athletic training is one of the professions in the people-oriented or care-giving occupations. The ATC is most directly responsible for all phases of health care in an athletic environment (Arnheim & Prentice, 2000). Duties of the certified athletic trainer include preventing injuries from occurring, providing initial first aid and injury management, and evaluating injuries (Arnheim & Prentice, 2000). Other duties involve treatment, rehabilitation, and sometimes the counseling of athletic individuals. Designing and supervising a timely and effective program of rehabilitation that can facilitate the safe and expeditious return of the athlete to activity are other responsibilities the certified athletic trainer performs (Arnheim & Prentice, 2000). According to Arnheim and Prentice, the athletic trainer is subject to burnout due to the frequent interactions with parents and athletes, coaches, and administrators on a daily basis.

The demands of the athletic training profession and duties may require athletic trainers to put in long hours and deal with strenuous workloads. Athletic training is a profession that requires the provision of services to injured individuals on a daily basis. Athletic training is a profession of caring for and serving the athlete (Arnheim & Prentice, 2000). Many factors may contribute to the rise of burnout among athletic trainers including too many athletes to care for, expectations of coaches to return an injured athlete to action, difficulties in caring for chronic conditions, and personality conflicts involving athletes, coaches, physicians, or administrators (Arnheim & Prentice, 2000). The current thesis

investigated the factors affecting burnout in high school certified athletic trainers in the state of California. Chapter one is an introduction to burnout and is divided into five major sections: (a) the statement of purpose; (b) research hypotheses; (c) limitations; (d) delimitations; and (e) definitions. The introduction is followed by a brief summary of the chapter.

Statement of Purpose

The purpose of the study was to examine the factors that affect burnout among high school ATCs in California by examining the number of athletes, number of athletic teams, the number of hours worked per week, and the number of years as an ATC.

Research Hypotheses

1. Higher levels of burnout were associated with a higher athlete to athletic trainer ratio.
2. Higher levels of burnout were associated with the number of hours worked per week.
3. Higher levels of burnout were associated with the number of athletic teams per athletic trainer.
4. Higher levels of burnout occurred in those certified athletic trainers just beginning their career compared to those ATCs in the later stages of their careers.

Limitations

The study was limited by:

1. The willingness of the participants to answer the questionnaires honestly.
2. The person returning the survey.

3. Return rate of the questionnaires.
4. Whether or not the Maslach Burnout Inventory (MBI) will accurately determine the levels of burnout in high school ATCs.

Delimitations

1. The MBI was used to measure burnout in high school ATCs.
2. Two hundred forty two high school certified athletic trainers were studied.
3. High school certified athletic trainers were studied.
4. High school certified athletic trainers in the state of California were studied.

Definitions

Athletic Training. Recognized by the American Medical Association as an allied health care profession. A profession that plays a major role in the health care of the physically active and athletic population.

Burnout. Syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment as a result of constant or repeated emotional pressure associated with intense involvement with people over long periods of time (Maslach, 1982).

Certified Athletic Trainer (ATC). Recognized allied health-care professionals who complete a minimum bachelor's degree with extensive academic and clinical training in the broad area of care and prevention. Athletic trainers are considered certified once they have passed the National Athletic Trainers Association Board of Certification Examination (Pfeiffer & Magnus, 1998).

Role ambiguity. "associated with a lack of clarity regarding a worker's rights, responsibilities, methods, goals, status, or accountabilities" (Farber, 1983, p. 6).

Role conflict. “increasing complexity of tasks and technology, the rapidity of organizational change, and the interconnectedness of organizational positions. Occurs when inconsistent, incompatible, or inappropriate demands are placed on the individual” (Farber, 1983, p. 6).

Stress. Occurs when there is substantial imbalance between environmental demands and the response capability of the individual (Farber, 1983).

Stressor. Demands in the work environment that are perceived by the individual as being problematic, e.g. workload, role conflict, or role ambiguity (Schaufeli et al., 1993).

Summary

Burnout may be caused by being introduced to high levels of stress on a daily basis. Many studies (Freudenberger & Richelson, 1980; Maslach, 1982; Schaufeli et al., 1993) have discovered that helping professionals are subjected to burnout due to an increased work load, role conflict, and role ambiguity. The social interaction of helping and giving between helper (ATC) and recipient (athlete) on a daily basis is one of the main factors that make ATCs vulnerable to burnout. As stated in Arnheim and Prentice (2000) certified athletic trainers are susceptible to burnout because they may have too many athletes to care for, high imposed demands to meet the expectations of the coaches to return the injured athlete back to play, and potential personality conflicts of coaches, administrators, parents, and physicians. Due to the stressors and responsibilities involved in the profession, athletic trainers are at a high risk to suffer from burnout (Arnheim & Prentice, 2000). This thesis will examine the factors affecting burnout among high school

ATCs in the state of California when looking at the number of hours worked per week, the number of athletes, the number of athletic teams, and the number of years as an ATC.

CHAPTER TWO

REVIEW OF LITERATURE

Burnout is a phenomenon thought to undermine the morale and well being of health care professionals, reduce the quality of care given to patients, and in general disrupt the overall operation of human service programs. The American Psychotherapy Association (2002) states that burnout is very common in the helping professions: nurses, doctors, therapists, etc, suffer from stress related emotional and physical illnesses in higher proportions than other professions.

The purpose of the study was to examine the factors affecting burnout among high school ATCs in California by examining the number of athletes, number of athletic teams, the number of hours worked per week, and the number of years as an ATC. Chapter two contains a review of the recent literature related to burnout and is divided into eight major sections: (a) an introduction; (b) athletic training definitions and duties; (c) theoretical development and definitions of burnout; (d) job burnout in nurses; (e) public servants; (f) certified athletic trainers; (g) Division I certified athletic trainers; and (h) high school certified athletic trainers. The review of literature will be followed by a brief summary.

Duties of Certified Athletic Trainers

A certified athletic trainer is a recognized allied health care professional who has completed a minimum of a bachelor's degree with extensive academic and clinical training in the broad area of care and prevention. Athletic trainers are considered certified

once they have passed the National Athletic Trainers Association Board of Certification examination (Pfeiffer & Magnus, 1998).

Injury prevention and reduction of further injury are primary responsibilities of the athletic trainer. The duties of a certified athletic trainer include prevention of athletic injuries, evaluation of athletic injuries, first aid and emergency care, rehabilitation and reconditioning of injured athletes, organization and administration of athletic training room, counseling and guidance of athletes, and education of athletes, parents, and coaches (Arnhiem & Prentice, 2000). To perform those duties athletic trainers must maintain competency in the following areas: prevention of athletic injuries, including assessment of an athlete's physical condition; early recognition, evaluation, and care of injuries, including accurate assessment of the type and severity of injuries and obtaining pertinent medical records; rehabilitation and reconditioning to minimize the risk of re-injury once the athlete returns to play; health care administration, which includes documentation, reporting injuries, writing policies and procedures, patient referrals, and budgeting (Lyznicki, Riggs, & Champion, 1999).

The Concept of Job Burnout

Burnout has been defined in a variety of different ways (Daley, 1979; Maslach & Jackson, 1981a, b; Schaufeli et al., 1993). For the purpose of this paper burnout is defined as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment as a result of constant or repeated emotional pressure associated with intense involvement with people over long periods of time (Maslach, 1982).

Burnout is a process that begins with excessive and prolonged levels of job tension. The burnout process ends when the worker defensively copes with job stress by psychologically detaching themselves from the job by becoming apathetic, cynical, and rigid (Schaufeli et al., 1993). Burnout is significant to worker productivity creating an apparent negative impact on job performance, morale, attitude, and job satisfaction. Patrick (1981) identified an increase in the amount of burnout among nurses, emergency medical technicians (EMTs), and ATCs. Work environment, role conflict, role ambiguity, organizational distrust, and the inability to deal with job stressors are reasons behind the sudden rise in burnout among nurses, EMTs, and ATCs (Patrick, 1981). These variables contribute to burnout among nurses, EMTs, and ATCs in general, but it is hard to determine if the variables mentioned above will contribute to the level of perceived burnout among high school ATCs, due to the lack of current literature.

Figure 1. (Variables of burnout adapted from Maslach, 1982)

Daley (1979) states that burnout is a reaction to a job related stress that varies in nature with the intensity and duration of the stress itself. Physical exhaustion, lowered job productivity, depersonalization, and emotional exhaustion are among the signs and symptoms associated with stress and burnout (Schaufeli, 1993). Haddad (2002) identified job satisfaction and burnout as contributing to a decrease in job output. Haddad reported that burnout and high levels of stress lead to cynicism, negativism and a loss of concern about patients. High levels of stress have been found to lead to cynicism, negativism, and loss of concern about patients, therefore, future studies should see if high levels of stress lead to the same outcome among high school ATCs.

Arnheim and Prentice (2000) explained the definition of stress as the positive and negative forces that can disrupt the body's equilibrium. In addition to Arnheim and Prentices' definition of stress, Selye (1982) stated that stress was the nonspecific result of any demand upon the body, be the effect mental or somatic. Capel (1986) stated that the emotional responses to stress were related to employees who perceived their work environment to be hostile and threatening. High school certified athletic trainers who perceive their work environment to be hostile and threatening based on Capel's statements, may be more prone to stress which in turn can lead to increased perceptions of burnout.

Vallera (1993) suggested that a relationship between work environment, job satisfaction, and incidence of employee withdrawal or burnout does exist. Burnout, he states, is an element of employee withdrawal and can be identified from such factors as an increased incidence of absenteeism, high employee turnover, and low productivity.

The results of Vallen's study indicated that employee satisfaction was directly related to organizational characteristics. Employee satisfaction for the study was measured by looking at personal factors, work environment, and the job content of the participant. Vallen reported 20-30% of absenteeism and job turnover was related to job dissatisfaction among employees. Burnout among high school ATCs may be attributed to the relationship between work environment and incidence of employee withdrawal, as Vallen has suggested.

In another study done by Maslach and Jackson (1981a) characteristics of the work environment were more strongly related to burnout than were demographic and personality factors. Maslach and Jackson also noted that work overload, role conflict, and role ambiguity increased the frequency of burnout. The social environment of the employee's work setting was also frequently linked to and burnout (Maslach & Jackson, 1981a).

An examination of employees who experience autonomy in their jobs, positive feedback, opportunity to use their professional skills, and a work environment free of ambiguity reported lower levels of burnout (Leiter, 1991). Leiter states that a positive supervisor relationship is associated with lower levels of burnout as opposed to negative relationships and job dissatisfaction, which were associated with higher levels of burnout among employees in the helping professions.

These statements were supported by Patrick (1981), who found several factors to be related to burnout among allied health care professionals in his study. Work demands (both physical and social), the work intensity, decision-making requirements, level of

responsibility, and accountabilities were associated with higher levels of burnout. Within the same study, knowledge and skill requirements, emotional demands, the atmosphere at work (work environment, coworker relationships, and degree of comfort), system of support, amount of stimulation or challenge, and lack of closure or completion were also associated with high levels of burnout among members of the allied health profession. High school ATCs are considered to be apart of the allied health care profession, and can also be prone to burnout based on the variables that Patrick states to be the cause of burnout among allied health care professionals.

Burke, Greenglass, and Wolpin (1991) conducted a study on psychological burnout as a cause of job satisfaction. The results from the study indicated negative work setting characteristics resulted in greater work stressors that, in turn were associated with increased psychological burnout that in turn, resulted in decreased job satisfaction. Therefore, dissatisfaction with one's job increases in proportion to the increase in sources of stress and psychological burnout experienced by the employee. The final conclusion of the study was that psychological stress and burnout are related although they are not identical concepts. The high school ATC may be exposed to negative work settings that result in great work stressors, which may contribute to an increase in the perception on psychological burnout among high school ATCs.

Why Burnout in Allied Health Care Professions

Professionals in the human services provide care, support, attention, comfort, and assistance to their clients or patients. According to Schaufeli et al. (1993), there is an unbalanced relationship between the caregiver and the recipient. The caregiver is always

giving and the recipients are always receiving. Schaufeli et al. states the strains of the unbalanced relationship may result in the depletion of the caregiver's emotional resources, and lead to burnout. The rate of turnover among professionals is approximately twice as high in the service field compared to non-service fields. Patrick (1981) stated that those who engaged in direct people-to-people work were at high risk for burnout. Cordes and Dougherty (1993) discovered that burnout is a reaction to role stress and is quite prevalent among human-service professionals unable to deal with excessive demands on their energy, time, and resources. Therefore, nurses, public servants, collegiate certified athletic trainers, and high school certified athletic trainers all share a commonality in that all health care professions seek to aid in treatment, rescuing, or rehabilitation of the injured. Specifically, high school ATCs also have reactions to role stress, and may also be unable to deal with the excessive demands on their time, energy, and resources. As stated early in this chapter, the purpose of this thesis will be to examine the potential factors that may attribute to burnout among high school ATCs.

Nursing and Burnout

Job dissatisfaction and burnout are among the most important reasons in the decline of available nurses (Haddad, 2002). A "disconnect" between professional ideals and the taxing realities of the work environment is overwhelming. Haddad states that most nurses retain a sense of dedication and love for the nursing profession. Nurses may experience profound distress, especially under unrelenting physical and mental job demands. Aiken et al. Sloane (2001) discovered that 40% of the hospital nurses reported being dissatisfied

with their job. The causes for job dissatisfaction and burnout were increases in acutely ill patients, greater staff turnover, and the general shortage of nurses.

A study done by Aiken, Clarke, Sloane, Sochalski, and Silber (2002) reported that in 1999 California passed legislation mandating patient-to-nurse ratios in all hospitals. The California legislation was motivated by an increasing hospital nursing shortage and the perception that lower nurse retention in hospital practice was related to burdensome workloads, high levels of job-related burnout, and job dissatisfaction among hospital nurses. The researchers found that nurses in hospitals with the highest patient-to-nurse ratios (8:1) were more than twice as likely to experience job-related burnout and almost twice as likely to be dissatisfied with their jobs when compared with nurses in hospitals with the lowest patient-to-care ratios (4:1). Aiken et al. discovered that the increase in the number of nurses leaving their current job within a year time span was attributed to high levels of job dissatisfaction and burnout perceived by the nurses. Improvement of nurse staffing levels may reduce alarming turnover rates in hospitals by reducing burnout and job dissatisfaction, major precursors of job resignation.

Burnout among nurses is a phenomenon associated with working conditions in the helping professions (Leiter, 1991). Leiter discovered that lower levels of autonomy, lack of control over practice, poor collaborative working relationships, and lower levels of organizational trust all contributed to higher levels of burnout in staff nurses. Oehler, Davidson, Starr, and Lee (1991) revealed that low supervisory support was predictive of burnout in staff nurses. In addition to low supervisory support, Albrecht (1982) recognized that higher levels of burnout were associated with a lack of managerial and

co-worker support. When the work environment did not allow for discretionary decision making burnout was more likely to occur. Ray (1984) revealed that demands on time, organizational stressors, and interpersonal relationships were inherent characteristics of the nursing profession that could possibly lead to burnout among nurses.

In a meta-analysis of job satisfaction and turnover among nurses, Irvine and Evans (1995) confirmed links between job satisfaction, behavioral intentions, and turnover behavior. Within their study variables such as role conflict, head nurse leadership, supervisory relations, autonomy, and stress strongly correlated with job satisfaction. Opportunity for advancement, feedback, and pay were moderately correlated to job satisfaction. Weaker correlations were found for work relations, work overload, age, and job venue. The consequences of nurses' job satisfaction are costly at the personal, professional, and organizational levels.

Another study performed by Bush (1988) explored the effect of perceptions of powerlessness and locus of control on job satisfaction in a sample of 145 registered nurses from six hospitals in the United States. Twenty-two percent of the variance of job satisfaction was explained by powerlessness. Locus of control was not a significant independent predictor of job satisfaction. Laschinger and Havens (1996) recognized strong correlations between staff nurses' perceptions of job related empowerment and overall work satisfaction in a study of 127 United States nurses.

Tumulty, Jernigan, and Kohut, (1994) conducted a study on 159 acute care facility nurses in a Southeastern metropolitan area. Within the sample of nurses Tumulty et al. discovered that relationship factors of the work environment seemed to contribute the

most to the job satisfaction of nurses. Therefore, staff nurses who perceive the work environment to be relatively positive were more satisfied with their jobs than those who perceived the work environment to be negative. Involvement defined as concern about the job, peer cohesion, and supervisor support explains a significant amount of job satisfaction for nurses.

Dolan (1987) did a study on 90 nurses from nine Dublin, Ireland city hospitals. The participants consisted of 30 psychiatric staff nurses, 30 general nurses, and 30 administrative nurses. Using the Maslach Burnout Inventory (MBI) to assess burnout and a job satisfaction survey Dolan discovered a significant correlation between burnout and job satisfaction in this particular study ($r = 0.68$). Rapid turnover of patients in a general hospital and having to treat too many patients in too short a time were all reasons behind burnout among general nurses in this particular study. A nurse's inability to meet the demands of his/her patients instills feelings of guilt and resentment. The lack of research on high school ATCs does not allow us to know if there is a direct correlation between the number of athletes and the level of perceived burnout among high school ATCs.

Many significant factors are thought to influence the retention of nurses and have been identified. Among the most consistent predictor has been satisfaction with one's job and the factors that may alter job satisfaction (e.g. stressors in the work environment). Prescott and Bowen (1987) identified staffing, scheduling, lack of stimulation, supervision, and staff shortages as factors influencing job satisfaction among nurses. Additionally Prestholdt, Lane, and Mathews (1988) reported that work environment, beliefs concerning other employment options, advancement opportunities, and salary

were related to job turnover among nurses. Satisfaction with promotion, performance constraints, supervision, organizational tenure, opportunities for participation, and salary constituted significant predictors of nurses' intentions to resign.

Robinson, Roth, Levenson, Flenje, and Bashor (1991) tested 314 nurses, and used the MBI as well as the Work Environment Scale (WES) to measure levels of burnout. The MBI was used to assess burnout, and the WES to assess the individuals' perception of the work environment. The study found that for the 314 nurses in the study, all three aspects of burnout (personal accomplishment, emotional exhaustion, and depersonalization) were influenced by perceptions of high work pressure and low work involvement. The authors also found age to be a significant factor in burnout among this group of nurses, with the younger nurses experiencing more depersonalization than the older nurses.

Public Servants and Burnout

Paramedics and emergency medical technicians (EMTs) are very susceptible to burnout. EMTs face daily exposure to human tragedy and chronic stressors such as dealing with injury, mutilation, and death. EMTs and paramedics must make do in their immediate environment and, in some instances, in the presence of physical danger. Job performance is often scrutinized by bystanders and the traumatized relatives of their patients (Cydulka et al., 1989). Emergency medical services provided outside the hospital emergency room setting are often delivered in a hostile world where darkness, adverse weather conditions, difficult terrain, and unpredictable dangers magnify the pressure (Linton, Kommor, & Webb, 1993). According to Gribgsby and McKnew (1988) paramedics are reported to have the highest mean burnout score observed among health

care professionals. The average length of the professional paramedic career has been reported to be less than 4 years.

The stress that EMTs undergo is not only limited to what they experience in the field but is also compounded by the regular monotonous routine of paperwork, lack of administrative support, low wages, long hours, irregular shifts, and cynical attitudes of hospital personnel and law enforcement officials (Boudreaux, Mandry, & Brantley, 1998). Death (especially in children), injured or batter children, gory sights and sounds, unnecessary calls, drug abuse patients, fires in high rise buildings with threat to human life, mass casualties, and threats to their own health and life were stressors paramedics found to be the most stressful part of the job (Boudreaux et al., 1998).

Karasek, Schwarty, Schnall, Pieper, and Michaela (1988) specifically identified "firemen" as employees of a high demand/ low control occupation, having repeated demands placed on them with little choice of assignments. According to Karasek et al., high demand/low control job characteristics are antecedents to decreased job satisfaction, increased exhaustion, depression, and burnout among EMTs and paramedics. Karasek et al. also discovered that the accumulation of unresolved strain restricts workers' ability to learn solutions to new problems, which means that workers in high demand/low control jobs may perform below their ability levels and simultaneously be vulnerable to stress and burnout. Neale (1991) discovered that EMTs are at a high risk for stress exposure because emergency service work is typically performed in uncontrolled, dynamic, and potentially hostile or hazardous public environments.

Neale (1991) did a study of 200 urban Michigan EMT workers who were active union members. All of the participants were mailed questionnaires to fill out and return, and 103 of the 200 returned the questionnaires. There were three questionnaires that each subject was to fill out: staff burnout scale for health professionals, occupational stress inventory, and a series of items on attitudes/beliefs related to the occupation of emergency medical technicians and the current job situation. The results of Neale's study showed higher levels of burnout, stress, and strain, and lower coping skills than did the samples of most other occupational groups. Although the majority of EMTs (53%) were satisfied with their jobs, a large majority of the participants expressed dissatisfaction with many aspects of the work. Burnout was also related to attitudes that the job adversely affected one's family. Other factors contributing to burnout were EMT headquarters being very uncomfortable and the administrators not being knowledgeable of the job demands and skills of EMTs. Hawks and Hammond (1990) acknowledged that the high levels of burnout among EMTs were two fold: EMTs are at the bottom of the medical hierarchy (which requires them to get permission to perform the simplest procedures from someone else), and EMTs are only paid minimum wage and are often required to work overtime.

The greatest areas of discontent among EMTs were low wages, lack of comfortable headquarters, inadequacy of equipment to meet the health care needs of patients, administrators' unfamiliarity with the work-related demands and stressors, and the risk of developing back injuries or contracting serious diseases (Neale, 1991). Results of Neale's study showed that the average length of employment with the current EMT employer was

5 years, with a range of less than 1 year to 20 years. The mean number of years that participants in this study planned to remain in the emergency medical services profession was 5.6 years.

Certified Athletic Trainers and Burnout

Arnheim and Prentice (2000) state that the athletic trainer is concerned with the well being of the athlete and generally assumes the responsibility for overseeing the total health care of the athlete. The field of athletic training provides a major link between the sport program and the medical community for the implementation of injury prevention, emergency care, and rehabilitative procedures (Arnheim & Prentice, 2000). The athletic trainer can minimize the risk of injury by ensuring appropriate training and conditioning, monitoring environmental conditions to ensure safe participation, selecting, fitting, and maintaining protective equipment, and making sure the athlete is eating properly. Arnheim and Prentice wrote that diversity of the athletic trainers job is what leads to burnout and stress among athletic trainers.

During the past 20 years, sport has emerged to assume a preeminent place within all sectors of American society. As the sporting enterprise has grown and matured, so too has the profession of athletic training (Staurowsky & Scriber, 1998). The study done by Staurowsky and Scriber stated that athletic trainers are set apart from their staff colleagues in other disciplines by virtue of the diverse nature of their appointments. As a subgroup, athletic trainers are called on not only to teach but also to perform their job in the athletic setting. The diversity of athletic training provides the groundwork for role conflict and burnout. The typical daily responsibilities relating to the prevention, care,

and management of athletic injuries are time consuming. Staurowsky and Scriber's study of 153 certified athletic trainers discovered that 80% of the participants worked on staffs of at least three and nearly 60% worked on staffs of at least four or more, and they still averaged more than 50 hours a week. The pattern of diverse job demands combined with long work hours parallels the conditions associated with burnout among certified athletic trainers.

In a study of attrition and athletic trainers, Capel (1990) discovered that human relations are central to the success of an athletic trainer. The purpose of her study was to determine why athletic trainers were no longer employed in the profession. Capel revealed that pressures perceived by ATCs' resulted from the need to continuously interact with players, get players back to action quickly, and to play the roles of disciplinarian, parent, public relations expert, and sports psychologists. When those roles conflict, or when the athletic trainer's need for meaning and fulfillment of the job is not met the result may be anger, frustration, psychosomatic illness, absenteeism, or leaving the job as the final product (the burnout phenomenon).

Eighty-two certified athletic trainers were the participants of Capel's (1990) study on the attrition of athletic trainers. Fifty-nine of the participants had left the profession entirely, while 23 considered themselves still in the athletic training profession, but not as a practicing athletic trainer. A questionnaire was sent out to each of the individuals within the study. The questionnaire included 22 questions to determine information about the individual, information about the institution for which the individual worked for, reasons for leaving and entering the professions, and current employment status. Results showed

that 75% of the respondents were less than 36 years old, 75% were certified for 10 years or less, and 50% had been employed in the profession for less than 5 years. In response to reasons for leaving the profession correspondents stated that they wanted to get more education, the job was too time consuming, there was not enough opportunity to advance as an athletic trainer, they wanted to spend more time with their family, and the pay was very low (Capel, 1990).

Males, females, novices, and veteran athletic trainers are all affected by burnout (Gieck, 1984). Poor relationships with athletes, coaches, and administrators add to the rise of burnout in certified athletic trainers. Poor or negative interpersonal relationships with coaches, administrators, and athletes lead to a sense of frustration (Gieck, 1984). As a result of the negative attitudes of others, the athletic trainer begins to feel powerless leading to an increase in burnout. The low pay, heavy hour load, mental and emotional commitment of athletics gives way to a sense of isolation. Gieck stated that the responsibility of deadlines and the failure of not getting an athlete ready for a contest were compounded when an unrealistic goal was set for the athlete. Rules coaches make that are not acceptable to the trainer but must be enforced give the trainer conflict problems.

Gieck (1984) stated that the athletic trainer's classic work style is over dedication and over commitment. The athletic trainer begins a career with a high level of enthusiasm, especially when the athletic trainer goes into a situation that lacks a professional atmosphere. Adding to this is a 65-80 hour weekly work schedule and additional tasks and duties that are not really in the realm of athletic training or are not to the athletic

trainers liking. All are responsible for high levels of burnout and stress among athletic trainers. A similar study performed by Gieck, Brown, and Shank (1982) discovered that long hours, heavy workloads, and pressing responsibilities of the industrial revolution to be frequent causes of burnout and stress among athletic trainers. Gieck et al. studied the fact that burnout among athletic trainers was associated more frequently with athletic trainers who had been in the profession longer and had more experience.

In a study examining the motivating congruency and discrepancy of athletic trainers, Buxton, Lankford, and Gieck (1992) specifically looked at one's perceived control of the situation. Twenty-five ATCs in Hawaiian high schools, colleges, and clinics participated in the study. The study looked at three intrinsic factors: perceived importance of the work environment, job growth or enlargement, and achieving work-related goals, and three external factors: good benefits and wages, good working conditions, and getting along with other, were identified as motivators. The strongest motivators were the perceived importance of the work environment and job growth. The study did prove that reducing job dissatisfaction did lead to a decrease in burnout among athletic trainers.

A study done by Tanaka (2000) studied the effect of gender and the number years of professional experience as an ATC on the level of perceived burnout among ATCs. One hundred twenty participants (69 males and 51 females) participated in the study. The study used the MBI to measure burnout among the participants. Participants were placed into four categories based on experience. Group A consisted of ATCs with 0 to 5 years of experience, Group B had greater than 5 to 10 years experience, Group C had greater than 10 to 15 years, and Group D had greater than 15 years of professional experience.

Those participants in Group D had the highest mean scores on all three levels of the burnout scale (emotional exhaustion, depersonalization, and personal accomplishment). Group A had the highest mean score on the personal accomplishment scale which indicates that there are lower levels of burnout. Groups A, C, and D all scored in the moderate level on the emotional exhaustion scale. Moderate scores on the emotional exhaustion scale are indicative of higher levels of burnout. The study indicated that those ATCs with lower or higher years of experience were more prone to burnout.

Collegiate Certified Athletic Trainers and Burnout

Acevedo, Hebert, and Hendrix (2000) investigated the relationship of hardiness, social support, and work-related issues relevant to athletic trainers to perceived stress and the relationship of perceived stress to burnout. Their samples consisted of 118 ATCs working in the National Collegiate Athletic Association Division (NCAA) 1-A setting. The schools in the Division 1-A setting had to have a football program in order to be considered for the study. Their study assessed personal and situational variables using the Hardiness Test, Social Support Questionnaire, and the Athletic Training Issues Survey. Results indicated that those athletic trainers who scored lower on the hardiness and social support and higher on athletic training issues tended to have higher levels of perceived stress and burnout. They also found that higher levels of perceived stress scores related to higher emotional exhaustion and depersonalization and lower levels of personal accomplishment.

Pitney, Ilsley, and Rintala (2002) conducted a study on the professional socialization of certified athletic trainers in the NCAA Division I (DI) context. They believed that

socialization was important and inevitable to burnout among ATCs in the D1 context. Using a qualitative method, 16 interviews were conducted (11 males and five females) who were either currently or formerly affiliated with NCAA D1 programs. The researchers of this study discovered that professional socialization of the ATC at the NCAA D1 level was informal and unstructured in nature. Both the informal and unstructured affiliation among the 16 ATCs in the study lead to an increase in job satisfaction in the earlier years of the profession.

High School Certified Athletic Trainers and Burnout

Participation in high school sports is an important means by which adolescents can become more physically active and learn to develop and maintain strength, endurance, and overall fitness. Injury is an inherent risk of such participation. The increase in participation and many developmental changes in the bodies of young athletes require an increased effort to reduce the negative effects of sports activity (Ballard, 1996). To enhance safety and reduce injury risk, some high school administrators use the services of a certified athletic trainer. During the 1996-1997 school year, more than six million adolescents participated in a high school sports program (Almquist, 2001).

The high school ATC provides on-site emergency health care and coordinates the school's athletic health care program (Arnheim & Prentice, 2000). The athletic trainer can also assume an important role as a liaison to the team physician, athletes, and coaches. Injury prevention and the reduction of further injury are primary responsibilities of the high school athletic trainer. The high school ATC designs, coordinates, and implements a comprehensive athletic training and injury prevention program (Arnheim &

Prentice, 2000). Other jobs that a high school athletic trainer provides are daily treatments and preventive measures for high school athletes, practices, and games (Lyznicki, Riggs, & Champion, 1999).

Certified athletic trainers are vital to the high school setting; they provide immediate emergency care, evaluation, medical referrals, and the rehabilitation of athletic injuries. According to Almquist (2001) high school ATCs enable the coaches to stay focused on the game rather than them diverting their attention to injuries that occur on the field. The high school ATC also improves the athlete's chances of returning to play quicker (Almquist, 2001).

Pitney (2002) conducted a study on the professional socialization of ATCs in the high school setting. A total of 15 participants (12 ATCs currently practicing at the high school level, two current high school athletic directors, and one former high school ATC) participated in the study conducted by Pitney. Using a qualitative approach Pitney discovered that ATCs entering the high school level reported extremely non-structured, informal processes relative to learning the full extent of their professional responsibilities within the organization. This informal non-structured process could also be attributed to lower levels of job satisfaction and higher levels of burnout among high school ATCs.

Kauk (1990), conducted a study on the prevalence of burnout among high school certified athletic trainers in the state of California, in 1989. Kauk, sent 115 high school ATCs the MBI and a demographic survey. The study yielded a 63% return rate, with 63 of the 115 participants returning surveys. The demographic variables consisted of the subjects sex, age, marital status, level of education, number of years as an ATC, years at

present job setting, type of position, and current income. Kauk, discovered that the level of burnout among the high school ATC population was low over all three subscales. The participants in Kauk's study exhibited a higher degree of burnout within the Emotional Exhaustion subscale than in the other two subscales. Fifty five percent of the participants had low levels of depersonalization, and 68% of participants were experiencing high feelings of personal accomplishment, which is associated with low burnout.

Kauk's (1990) study also discovered that high levels of depersonalization were associated with those ATCs who worked a greater number of hours each week and taught in the high school setting. Fifty percent of the participants in Kauk's study had an average workweek of 40 hours or more each week, and 40% of the ATCs in Kauk's study reported that they came into direct contact with 20 or more athletes each day.

Summary

The nature of burnout should be recognized as a function of the individual relationship with the work environment, with each individual relating to the work environment in a unique and qualitatively different way. Burnout was found to be a significant factor for allied health care professionals in several studies (Burke et al., 1991; Gomez & Michaelis, 1995; Maslach & Jackson, 1981a). Patrick (1981), states that the significance of burnout to worker productivity lies in the apparent negative impact on job performance, morale, attitude, satisfaction and use of benefits, such as sick leave.

Burnout is a process that takes time to develop and flourishes in an environment characterized by high or continuous levels of stress (Gleick, 1984). A burned out person may have feelings of emotional exhaustion, negative attitude shifts, and series of personal

deviations. Burnout, as a product produces a sense of emptiness, aloneness, frustration, fatigue and failure (Gieck, 1984). Inevitably, a care givers negative experience evokes an echoing negative effect in the care given thus, patient care suffers when care givers suffer from burnout (Gieck, 1984). Gieck et al. (1982) also discovered that withdrawal, complaints of being overworked, and dreads of going to work were also signs and symptoms of an employee who may be burned out.

The literature has revealed that the prevalence of burnout seems to be widespread; burnout respects no socioeconomic or cultural group. Burnout may be found among men and women of all age groups. It strikes all professions, including athletic trainers who actually may be at a higher risk owing to some of their unique vulnerabilities. The unique vulnerabilities of athletic trainers are low pay, lots of work hours, and mental/emotional commitment to athletics leading to isolation (Gieck, 1984).

Upon a thorough review of the literature, only one specific study was found on burnout and high school ATCs (Kauk, 1990). The results of Kauk's study show that burnout does exist among high school ATCs but was relatively low during the year 1989-1990, therefore the purpose of this thesis was to examine the factors affecting high school ATCs in the state of California when looking at the number of hours worked per week, number of athletes, number of athletic teams, and number of years as a certified athletic trainer.

CHAPTER THREE

METHODS

The purpose of the study was to examine the factors affecting burnout among high school ATCs in California by examining the number of athletes, number of athletic teams, the number of hours worked per week, and the number of years as an ATC. Chapter three includes four major sections: (a) sample selection; (b) variables (c) instrumentation; (d) data collection/procedures (e) statistical design. Following the major sections is a brief summary of the chapter.

Sample Selection

Participants in this study included all ATCs in the high school setting in the state of California, in 2003 ($n = 241$). According to the National Athletic Trainers Association the total number of high school ATCs employed in California in 2003 was 241. (NATA, 2003, personal communication).

Variables

Dependent Variables

Dependent variables in this study included emotional exhaustion, depersonalization, and personal accomplishment; the three variables make up the three subscales of burnout as measured by the MBI (Maslach & Jackson, 1981b, 1986).

Independent Variables

The independent variables studied consisted of the number of years the participants were certified as athletic trainers, the number of hours worked per week, the number of athletic teams assigned to the athletic trainer, and the total number of athletes.

Instrumentation

The dependent variable, burnout among high school ATCs, was measured by the MBI (see Appendix D). The MBI was designed by Maslach and Jackson (1981b, 1986) and is composed of 22 questions divided into three independent aspects/subscales of burnout: emotional exhaustion (EE) which corresponds to the psychological and physiological strain associated with the continual emotional involvement with one's consumers' situations (Gomez & Michaelis, 1995). The depersonalization (DP) subscale measures the development of cynical attitudes towards consumers. The last subscale is personal accomplishment (PA) which measures the service providers' perception of his/her own ability to control his/her situation, and to make a difference in their consumers' lives (Gomez & Michaelis, 1995).

High scores on the EE subscale are associated with feelings of anxiety, tension, physical fatigue and insomnia (Gomez & Michaelis, 1995). High scores on the DP subscale mean that the service provider has developed a coping strategy to limit the degree of contact with consumers by seeing the consumers as objects. Low scores on the PA subscale indicate feelings of little control and underachievement by the service provider (Gomez & Michaelis, 1995).

Scoring the MBI is done by calculating each subscale individually. For each subscale individuals respond to questions on a scale of 0-6. Points are added and then burnout is assessed as either high, moderate, or low dependent on the individual's score. Participants are considered to have a high level of perceived burnout if they score within the high category for burnout within each of the three individual subscales (see Table 1,

for category ranges). Participants are considered to have a moderate level of burnout if their score placed them into the moderate category within the three subscales for burnout (see Table 1, for category ranges). Last, participants were considered to be experiencing lower levels of burnout if they scored within the low category for burnout within in the three individual subscales (see Table 1, for category ranges). The emotional exhaustion subscale has nine questions, which means that a participant can have a high of 27 and a low 0. The depersonalization subscale includes five questions, with a range of a high of 24 and a low of 0. The personal accomplishment subscale has eight questions, which means that a participant can have a high of 0 and a low 48. Each participant was categorized as either exhibiting low, medium, or high degrees of burnout for each independent subscale by using the scoring key developed for the MBI.

The MBI has been used to determine the amount of burnout among human service workers (Aiken et al., 2002; Burke et al., 1991; Gomez & Michaelis, 1995; Maslach & Jackson, 1981a). The MBI has also been used in studies conducted on ATCs, specifically athletic trainers at the collegiate level (Capel, 1986; Kauk, 1990; Tanaka, 2000). A copy of the MBI could not be placed into the appendix because the instrument is under copyright and cannot be duplicated; but two examples of questions contained in the Maslach Burnout Inventory can be found in Appendix D.

Maslach and Jackson's (1981a) study discovered that the MBI's internal consistency using the Cronbach coefficient alpha was strong ($r = .83$ [frequency] and $.84$ [intensity]) for the 25-item scale. The emotional exhaustion subscale of burnout yielded, $r = .89$ (frequency) and $.86$ for intensity. The depersonalization subscale yielded, $r = .59$

(frequency) and .57 for intensity. The personal accomplishment subscale yielded, $r=.77$ (frequency) and .72 for intensity. Tanaka (2000) states that the MBI is a widely used and well accepted instrument to use when testing burnout in the helping professions. The MBI's internal consistency, test-retest reliability, and validity have been established and documented in previous research (Capel, 1986; Kauk, 1990; Schufeli et al., 1993; Tanka, 2000).

The demographic survey consisted of questions that pertained to the age and gender of the participants, years at their current position, hours worked per week, number of athletes and athletic teams they worked with, as well as a checklist of teams to see what competitive teams the ATC had at that particular high school.

Data Collection/Procedures

Participants ($N=241$) consisted of all head high school athletic trainers certified by the National Athletic Trainers' Association in the state of California. Participants' addresses were requested from the NATA and surveys were mailed to each participant.

Human Subjects-Institutional Review Board of San Jose State University approved the testing protocol prior to mailing (see Appendix A). A packet containing a cover letter explaining the research, a consent form (see Appendix B), demographic questionnaire (Appendix C), the Maslach Burnout Inventory (see Appendix D), and a self addressed stamped envelope was mailed to the participants. In order to maintain confidentiality a follow-up postcard was mailed to all the participants in the study (Appendix E). Participants were informed that the responses would remain anonymous. Participants

interested could request the results of the study from the researcher upon completion of the study.

Statistical Design

For the purpose of this study Pearson's product moment correlation coefficients were used to examine the relationships between burnout and the number of athletes per ATC, the number of hours worked per week, and the number of athletic teams per ATC. Multivariate Analysis of Variance (MANOVA) was used to identify any burnout relationships that existed between the independent variables and the three subscales of burnout. Descriptive statistics such as means, standard deviations, standard errors of the mean, frequencies, and percentages were used provide. Descriptive statistics were used to look at the factors affecting burnout among high school ATCs, when looking at the participant's demographic information.

Summary

High school ATCs in the state of California were studied to determine the factors affecting burnout while looking the number of athletes, athletic teams, hours worked per week, and number of years as an ATC. The MBI was to assess burnout due to its established validity and reliability when used in measuring professionals in the helping profession. Descriptive statistics were used to analyze the mean, standard deviations, frequencies, and percentages of the participants demographic information and MBI scores. MANOVA was used to assess relationships between the independent variables (number of hours worked per week, number of athletes, number of athletic teams, and number of years as a certified athletic trainer) and the three subscales of burnout

(personal accomplishment, depersonalization, and emotional exhaustion). The Pearson's product moment correlation coefficient was used to look at correlations between the independent and dependent variables.

CHAPTER FOUR

RESULTS AND DISCUSSION

The purpose of this study was to examine the factors affecting burnout among high school certified athletic trainers (ATCs) in California by assessing the number of athletes, athletic teams, hours worked per week, and the number of years as an ATC. The Maslach Burnout Inventory (MBI) was used to determine burnout scores for the inventory's three subscales. The three subscales of the MBI are emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). Chapter four presents the statistical results obtained by performing a descriptive data analysis, frequency distributions, MANOVA, and Pearson's product moment correlation coefficient on the three subscales of burnout as measured by the MBI, and finally a discussion of the results.

Participants, Results, and Discussion

Demographics

Two hundred forty-one surveys were mailed to high school ATCs in the state of California, 119 were returned (49% return rate), and 103 were usable (43% return rate). According to Dillman (1978) a return rate of 49% is considered to be acceptable. The return rate was relatively high compared to Tanaka (2000) who had a return rate of only 24 percent. Sixty five percent of the respondents were female and 35% of the respondents were male. The percentage of female participants has increased compared to Kauk (1990) and Tanaka (2000) who had 42% and 52% female participants.

The average number of hours worked per week for the ATCs in this study was 37.8 hours, with a range from 2 to 80 hours per week. Similar results were found in Kauk's (1990) study on high school ATCs. Sixty-one percent of the participants in the study averaged 40 hours per week or less, and 39% of the participants reported working on average 40 hours or more per week. The most commonly reported number of hours worked per week was 30 hours per week (12.6%), followed by 40 hours per week (11.6%), and 50 hours per week (9.7%), see Figure 2. Findings in this study were similar to the results found in the Kauk study. The total number of hours worked per week could include hours worked in the athletic training room, as well as other duties such as teaching, or being an athletic director.

Certified athletic trainers worked with an average of 490 athletes. A very wide range (2-1200) in the number of athletes the ATCs worked with, as illustrated in Table 1. The most commonly reported number of athletes worked with was 500 (15.5%), followed by 800 athletes (8.7%), and then 400 athletes (7.8%). The frequency distribution for the total number of athletes per ATC is shown in Figure 1. Kauk's (1990) study identified that the most frequently reported number of athletes was 451 and above (22.2%), which is similar to the results identified in this study on high school ATCs.

The average number of athletic teams worked with by an ATC was 27. The most commonly reported number of athletic teams that an ATC worked with was nine (8.7%). Great variability (1-64 athletic teams) existed in regards to the number of athletic teams that the ATC was responsible for in the study, as demonstrated in Table 1.

The average number of years as an ATC was higher (7.6 years) in the study when compared to the Kuak (1990) study, whose participants had an average of 4.6 years as an ATC. The average number of years at the current job setting was 5.4, which is relatively higher than 3.6 years, which was found in Kauk's study of high school ATCs.

Table 1.

Background Information for High School Certified Athletic Trainers (N = 241)

Variables	Mean	SE	Sd	Range	N	%
Age	32.7	.63	6.3	23-54		
N of yrs as an ATC	7.6	.52	5.3	.50-23		
Yrs at current position	5.4	.46	4.6	.25-23		
Gender						
Male					37	35.9
Female					66	64.1
N of hours worked/week	37.8	1.6	15.9	2-80		
N of athletic teams	26.5	1.4	13.7	1-64		
N of Athletes	490	27.1	275	6-1200		
Current Position						
Head ATC					92	89.3
Assistant ATC					5	4.9
Other					6	5.8

Figure 1. Frequency Distribution of the Number of Athletes per ATC (N = 241)

Figure 2. Frequency Distribution of the Number of Hours Worked per Week by an ATC (N = 241)

Unlike Kauk's (1990) study which indicated that there was a great deal of variability in terms of the type of position held by the participants, in the present study 92 (89.3%) of the participants were head ATCs, five participants (4.9%) were assistant ATCs, and six participants (5.8%) were grouped in the other category of employment. The other category included a variety of employment positions such as, athletic director/head ATC, (substitute) teacher/head ATC, and retired/part-time ATC. Overall, most of the participants in the study were head ATCs (92%), with 64% of the participants being female. The average work week among this group of high school ATCs was 37.8 hours with 61% of the participants working 40 hours or less per week.

Levels of Perceived Burnout

The levels of perceived burnout within each of the three subscales fell into the moderate category. The mean scores and standard deviations for EE, DP, and PA were 20.87 (10.28), 7.48 (5.33), and 37.99 (6.62) respectively (see Table 2 for burnout categories). Thus, while some ATCs in the study were experiencing high levels of burnout, the mean value for this sample was moderate. When compared to studies conducted by Capel (1953), Kauk (1990), and Tanaka (2000), their studies all indicated low levels of burnout within the samples of ATCs, over all three subscales. Robinson et al. (1991) discovered the mean scores for EE, DP, and PA were 22.66, 6.56, and 35.99, in their study of work related and demographic factors and nurses. The scores within the DP and PA subscale were relatively lower in Robinson et al.'s. study, conversely the score within the EE subscale was slightly higher. No specific trend was found in those individuals experiencing low levels of burnout. This indicated that the high school

athletic trainers in the study at the time of the survey had feelings of accomplishment in the current position they held, and they were not developing negative attitudes towards the athletes they worked with on a daily basis. The results also indicate that compared to the nurses in the Robinson et al. study, athletic trainers in the high school setting are experiencing an overall lower level of burnout.

Table 2.

Levels of Perceived Burnout Among High School ATCs (N = 241)

Subscale	Low	Moderate	High
Emotional Exhaustion			
Subscale range	0 – 16	17 – 26	27 or over
Frequency	37	31	35
Percentage	35.9	30.1	34.0
Depersonalization			
Subscale range	0 – 6	7 – 12	13 or over
Frequency	56	27	20
Percentage	54.4	26.2	19.4
Personal Accomplishment			
Subscale range	39 or over	32 – 38	0 – 31
Frequency	57	33	13
Percentage	55.3	32.0	12.6

The results indicate that since the time of the Kauk (1990) study burnout among high school certified athletic trainers within the state of California has increased from a low level of perceived burnout to a moderate level of perceived burnout.

Thirty seven participants (35.9%) scored in the low category in the EE subscale, 31 participants (30.1%) were in the moderate category, and 35 participants (34.0%) were in the high category. Examining the frequencies within the three subscales, the participants in the study exhibited a higher degree of burnout in the EE subscale than in the other two subscales as illustrated in Table 2. Kauk (1990), had similar results, with the participants in his study exhibiting a higher degree of burnout within the EE subscale. High burnout within in the EE subscale means that the individual may be experiencing higher levels of psychological and physiological strain that could be associated with the ATCs working situation (Gomez & Michaelis, 1995). Individuals who were categorized as experiencing high burnout within the EE subscale tended to be ATCs who worked 25 or more hours per week, and had more than 200 athletes. The literature revealed that burnout results from increased pressure associated with intense involvement with people over long periods of time (Maslach, 1982). As the high school athletic trainer works longer hours, the more athletes they come into contact with, may lead to an increase in pressure, therefore leading to an increase in the amount of psychological and physiological strain.

Fifty six participants (54.4%) scored in the low category in the DP subscale, which indicates that the participants in this study test appeared to be experiencing low levels of DP at the time of the survey. The findings in this study are consistent with Kauk's (1990) study, which basically yielded the same results that 55.6% of the participants tested were

experiencing low levels of DP at the time of his survey. The low DP scores within the sample indicate that the number of athletes, number of athletic teams, hours worked per week, and number of years as an ATC, have very little affect on the ATCs' feelings toward the athletes they come into contact. The low scores on the DP subscale are in support of Capel (1990), who discovered that the most enjoyable aspects of athletic training among a group of 82 ATCs who had left the profession were: working with athletes (55%) and professional activities (18%). Therefore, if the number of athletes, number of athletic teams, hours worked per week, and number of years as an ATC have very little affect on the athletic trainers' perceived burnout, then other factors (salary, age, gender, etc.) may need to be studied to see what factors cause an increase in the level of perceived burnout experienced by the athletic trainers in the present study.

Fifty seven participants (55.3%) scored in the low category of burnout within the PA subscale for burnout. High PA scores implicated a low level of burnout among the participants. Thirteen of the 103 participants (12.6%) were categorized as experiencing low levels of PA, which implicates high levels of burnout. High levels of burnout within the PA subscale are associated with feelings of low success within the profession, and decreased feeling of competence within the profession. Referring back to Kauk (1990), his study revealed that 68.3% of the participants in his study were grouped into the low category for burnout within the PA subscale. Low levels of burnout within the PA subscale means that the high school ATC in this study had high feelings of success and accomplishment within the athletic training profession.

Multivariate Analysis of Variance

Results of the Multivariate Analysis of Variance (MANOVA) indicated that there was a significant relationship between the number of hours worked per week and burnout within the PA subscale, see Table 3. Results indicated that the more hours an ATC works the higher the level of burnout within the PA subscale. Results from the MANOVA were supported by prior studies (Capel, 1990; Gieck, 1984; Kauk, 1990; Staurowsky & Scriber, 1998), which showed that a relationship does exist between the number of hours worked per week and the amount of burnout perceived by the ATC. Low scores on the PA subscale are associated with higher levels of perceived burnout. The PA subscale represents the ATC's perception of his/her ability to control his/her situation, and the ATC's ability to make a difference in the athletes' lives. The results are in support of Gieck, Brown, and Shank (1982) who discovered that long hours, heavy workloads, and pressing responsibilities, were frequent causes of burnout among athletic trainers. More importantly is the fact that the more hours an athletic trainer works, the more contact they are bound to have with athletes, decreasing the athletic trainer's perception of a controlled environment, and possibly making the athletic trainer feel as though they work they do has little affect on the athletes they work with on a daily basis.

A possible trend that was recognized within the MANOVA was the relationship between the number of hours worked per week and the number of athletes within the PA subscale. The relationship was weak, and had a significance of .065, as illustrated in Table 3. Although the relationship was weak, the MANOVA indicated that there may be some type of relationship between the number of hours worked per week in combination

with the amount of athletes and the ATC's burnout score in the PA subscale. Capel (1953) discovered that a greater number of athletes and greater number of hours worked resulted in a higher perception of burnout. Figure 3 is the graphic illustration of the trend between the number of hours worked per week and the number of athletes within the PA subscale. An increase in the number of hours worked per week and the number of athletes assigned to the athletic trainers can an decrease in the morale of the athletic trainer, and the athletic trainers may feel as though they have no control of the athletic training room. Long hours and more athletes to prepare in a short period of time may lead the athletic trainer to feel as though things in the working environment are spiraling out of control.

The number of hours worked per week, number of athletes, years an ATC, and number athletic teams accounted for 10% of the variance within the DP subscale, 65% of variance within the PA subscale, and 22% of the variance within the EE subscale. The low percentage of variance within the DP and EE subscale may be explained by the notion that there may be other variables (salary, education, marital status, etc.) that may contribute to the amount of burnout perceived by ATCs within the DP and EE subscales. Capel (1990), conducted a study on 82 ATCs who had let the profession. The participants in the study identified variables considered least enjoyable within the profession, the variables were: long hours (37%), salary (12%), conflicts with staff (12%), and paper work (6%).

There was no significant relationship between years as an ATC, number of athletic teams, and the number of athletes with the three subscales of burnout. Additionally, no relationship existed between the number of hours worked per week and the ATC's DP or

EE scores. The results indicate that the number of years as an ATC, number of athletic teams, and number of athletes have no affect on burnout among high school ATCs in the state of California. Within the DP and EE subscales the number of hours per week had no affect on the athletic trainers' physiological and psychological strain, nor did number of hours worked per week have any affect on the athletic trainers' development of negative attitudes towards the athletes worked with in the high school setting.

Table 3

Multivariate Analysis of Variance for the Three Burnout Subscales (N = 241)

	Dependent Variable	Type III Sum of Squares	Mean Square	F	Sig.
# Years as an ATC	DP Score _a	16.324	16.324	.636	.448
	PA Score _b	9.287E-03	9.287E-03	.001	.981
	EE Score _c	2.074	2.074	.025	.878
# of Athletic Teams	DP Score	2.788	2.788	.109	.750
	PA Score	22.209	22.209	1.463	.261
	EE Score	19.275	19.275	.235	.641
# of Hours worked/week	DP Score	624.468	26.020	1.014	.529
	PA Score	1255.865	52.328	3.448	.037
	EE Score	2929.931	122.080	1.486	.290
# of Athletes	DP Score	767.426	25.581	.997	.546
	PA Score	1069.001	35.633	2.348	.104
	EE Score	2920.439	97.348	1.185	.428
# of hours worked/ week*# of athletes	DP Score	1180.322	35.767	1.394	.325
	PA Score	1396.236	42.310	2.788	.065
	EE Score	4025.945	121.998	1.485	.289

a. Adjusted R Squared = .100; b. Adjusted R Squared = .654; c. Adjusted R Squared = .224

Figure 3. Number of Hours Worked per Week and Number of Athletes on the PA Subscale (N = 241)

Correlations

Pearson's product moment coefficient of correlation (r) shows that a negative correlation exists between the number of athletes and perceived burnout within the DP subscale. The DP subscale measures the development of cynical attitudes towards consumers; in this study the consumers would be considered the athletes. The correlation indicates that lower numbers of athletes are associated with higher scores within the DP subscale for burnout, and that the more athletes the ATC has to care for the lower perceived burnout within the DP subscale. Therefore, the number of athletes an athletic

Table 4

Perceptions of Burnout Among High School ATCs and Pearson's Product Moment Coefficient of Correlation.

		EE SCORE	DP SCORE	PA SCORE
Years as an ATC	r	.021	.062	-.018
	Sig. (2-tailed)	.833	.535	.853
	N	103	103	103
# of Hours Worked/Week	r	.126	.037	.180
	Sig. (2-tailed)	.205	.710	.069
	N	103	103	103
# of Athletic Teams	r	.039	-.077	.110
	Sig. (2-tailed)	.696	.437	.268
	N	103	103	103
# of Athletes	r	.038	-.196*	.089
	Sig. (2-tailed)	.702	.047	.369
	N	103	103	103

* Correlation is significant at the 0.05 level (2-tailed).

trainer has to care for has little affect on the amount of perceived burnout and the ATCs' attitudes and feelings towards the athletes. The results are supported by the 10% variance within the DP subscale (see Table 3 for variance). Table 4 illustrates all of the

correlations for the study. The negative correlation can be explained by the notion that the surveys were sent out approximately a month after football season; which could mean that the athletic trainer who works with a football team may be still be feeling the affects of football season, and the effects may have carried over into the responses on the survey. Also, the lower number of athletes the athletic trainers have to care for the more time the athletic trainer may have on their hands, the athletic trainers may start to feel unappreciated, and when they do interact with athletes they may have a negative or cynical attitude. The results are in contrast to Capel (1953), who discovered that the athletic trainers in her study had higher levels of perceived burnout associated with higher numbers of athletes.

Conclusion

One major finding of this study was that the ATCs at the time of the survey were experiencing moderate levels of burnout across all three subscales of burnout. The findings in this study are similar to studies performed by Capel (1953) and Robinson et al. (1991). Capel did a study on the psychological and physiological factors associated with burnout among ATCs. The results of Capel's study revealed that the mean total burnout among ATCs was in the moderate category across all three subscales of burnout. Similarly, Robinson et al. discovered that the nurses within the study were experiencing a moderate level of burnout at the time of the survey. Acevedo et al. (2000) discovered that ATCs at Division I-A universities were experiencing moderate levels of burnout within all three subscales of burnout during the time of study. In contrast to the results found in

this study, Aiken et al. (2002) discovered that 43% of the nurses were grouped into the high category of burnout across all three subscales.

When compared to other human service professionals (coaches, social service workers, and mental health workers) burnout within the EE and DP subscales among high school ATCs in this study was relatively lower. Within the PA subscale, burnout scores were similar to those scores found within other human service professionals (Acevedo et al., 2000). Although burnout does exist among high school ATCs, burnout across all three subscales is lower when compared to other helping professionals.

The participants in this study did not have scores that placed them into the high category of burnout within the three subscales of burnout. A high level of burnout therefore does not exist among high school ATCs. The scores do suggest that burnout does exist to some degree within this sample of high school ATCs. The results also indicate that since Kauk's (1990) study of California high school ATCs that burnout is increasing steadily among high school ATCs in the state of California.

CHAPTER FIVE

SUMMARY AND CONCLUSIONS

Burnout whether low, moderate, or high has been identified among a variety of human service professionals including nurses, EMTs and paramedics, and athletic trainers (Acevedo, Hebert, & Hendrix, 2000; Aiken et al., 2002; Capel, 1953, 1986, 1990; Dolan, 1987; Haddad, 2002; Robinson et al., 1991; Tumulty et al., 1994). Although burnout can affect any profession, human service professionals seem to be more susceptible to burnout due to the high interaction with individuals on a daily basis (Maslach & Jackson, 1981a). Chapter four presented and discussed the results discovered in this study, and chapter five presents a summary of the results, as well as conclusions and recommendations for addressing burnout among high school ATCs, and implications for future studies.

Summary

The purpose of the study was to examine the extent of perceived burnout among high school ATCs in California by examining the number of athletes, number of athletic teams, the number of hours worked per week, and the number of years as an ATC. One hundred three participants (females = 66, males = 37) returned fully completed MBI surveys and demographic information with implied consent, for a return rate of 43 percent.

The state of California was chosen due to regional interest. A thorough review of the literature revealed that a study examining burnout among high school ATCs had not been

conducted after 1990 (Kauk, 1990). Descriptive data and frequency distributions were performed on the three subscales as measured by the MBI.

Results revealed that the sample in this study were experiencing moderate levels of burnout at the time of the study across all three subscales, indicating the since the time of the Kauk (1990) study burnout has increased among high school ATCs in the state of California. The results of the MANOVA revealed a significant relationship between the number of hours worked per week and the burnout score within the PA subscale. The results are important because they indicate that the higher number of hours an athletic trainer works per week can have an affect on the ATCs feelings of confidence and success. A possible trend was recognized between the number of hours worked per week in combination with the number of athletes within the PA subscale. Pearson's product moment correlation coefficient revealed a significant negative correlation between the number of athletes and the amount of perceived burnout within the DP subscale. The negative correlation could be the result of the timing of the survey, or simply the ATC feeling unappreciated by the athletes, coaches, or administrators that they work with on a daily basis.

Across all three subscales participants in the study were grouped into the moderate category for burnout when the mean was taken for all three subscales. Participants within the study experienced the highest level of burnout within the EE subscale during the time of the survey, indicating high levels of physiological and psychological strain among the high school athletic trainers at the time of the survey. Fifty six participants (54.4%)

scored in the low category for burnout in the DP subscale, and 57 participants (55.3%) of the participants scored in the low category for burnout within the PA subscale.

The average number of years (7.6 years) as an ATC has increased by 3 years since the time of the Kauk (1990) study. Overall, 92% of the participants in the study were head athletic trainers, and 5.8% percent were grouped into the “other category” for employment. The other category included positions such as athletic director/head ATC, (substitute) teacher/head ATC, and retired/part-time ATC.

Conclusions

The following conclusions were established based on the results.

1. High school ATCs currently are experiencing moderate levels of burnout within all three subscales of the MBI.
2. Due to the low variance levels among the three subscales other independent variables should be examined.
3. The number of hours worked per week has an affect on the perceived burnout among high school ATCs.
4. The number of athletes and the level of perceived burnout within the DP subscale was significantly correlated.
5. The highest level of perceived burnout among these high school ATCs occurred within the EE subscale.

Recommendations for Future Research

The following recommendations were made based on the results.

1. Examine the affects of gender on the perception of burnout among high school ATCs.
2. Examine the possible difference of perceived burnout by the ATC's current position.
3. Follow subjects through the course of the calendar/academic year to examine whether scoring within the subscales changes seasonally.
4. Future studies should examine other demographic data such as salary, level of education, marital status, the route to certification, job satisfaction, and other certifications possessed, and their affect on levels of perceived burnout.
5. Future studies should examine the extent of burnout among high school ATCs in different states, and compare the results with the amount of perceived burnout among high school ATCs within the state of California.
6. Future studies should do a combination of a qualitative study and quantitative study to more in-depth responses from ATCs.
7. Another study should do a follow up study within the next 10 years to see if burnout among high school ATCs has increased as it has in this study.

Suggestions for Coping with Burnout (Adapted from Gieck, 1984)

1. **Exercise** – after a long day at work the athletic trainer may be psychologically tired from interactions with athletes all day long. Exercise can reduce anxiety, and mild depression, and more important keep the athletic trainer healthier. The suggested exercise time is 20-30 minutes; the exercise chosen should be one that the athletic trainer enjoys and one that the athletic trainer will be successful with completing.
2. **Diet** – the athletic trainer should have a balanced diet, Gieck (1984) suggested that each individual at least have one hot meal a day. Athletic trainers should avoid diets high in sugar, because sugars elevate the blood sugar and then the individual suffers a letdown (decrease in blood sugar) which may decrease the athletic trainers level of energy. Gieck (1984) stated that breakfast is the most important meal of the day, so if athletic trainers can only have one balanced meal of the day then breakfast should be that one meal.
3. **Sleep and Relaxation** – decreases in the amount of sleep the athletic trainer receives can be a stressor, which can add on to the other stressors the athletic trainer receives within the working environment. The suggested amount of sleep the athletic trainer should be receiving is between 7-8 hours at least 4 days a week (Gieck, 1984). Another way to reduce stress encountered in the work environment is through relaxation techniques such as: (a) breathing techniques; (b) yoga (if time permits); and (c) relaxing facial muscles. The recommended time that relaxation exercises should be done is between 10-20 minutes (Gieck, 1984).

4. **Time Management** – for athletic trainers in the high school settings who work long hours, making a list of priorities for the day may be the best way to get everything done. Gieck (1984), suggested that athletic trainers write down in order of priorities the tasks they needed to complete. Once the list was made, the athletic trainer then started with the highest priority task, and checked off each task as the task was completed. Gieck, also suggested that the athletic trainer plan something enjoyable, so that they would have something to look forward to at the end of a long day.
5. **New Form of Employment** – if none of the stress management techniques seem to be working a change in employment may be the only option to reduce stress. The change of employment could be subtle like switching high schools (changing the environment), or could be drastic like leaving the athletic training profession completely but continuing to work in the high school setting (e.g. athletic director or coach). The athletic trainer should write out a list of the pros and cons of the current situation and carefully examine the reasons for leaving before a decision is made. Remember that switching environments or leaving the profession may not alleviate the stress.
6. **Other Suggestions** – reading a book during leisure time may decrease stress and get the athletic trainers mind off of issues at work or in the athletic training room. Or, getting together with a group of high school ATCs to discuss problems that you may be encountering, and listening to other high school ATCs discuss issues that they may be having, can be beneficial in releasing stress (focus groups).

Implications for Athletic Training Education

1. Athletic training curriculums should require all athletic trainers to take a stress management course prior to graduating from an undergraduate program.
2. Athletic trainers may want to consider getting a masters degree in athletic training to increase the ability to manage and cope with athletes, coaches, and administrators.
3. Athletic training curriculums should incorporate an organizational course, to teach athletic trainers how to do paper work, how to do inventory, how to run an effective athletic training room.
4. Future athletic trainers who have been in the athletic training profession should set up a stress management seminar for undergraduate or athletic trainers just entering the profession.

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Appendix B

Agreement to Participate in Research

Responsible Investigator: Nicole L. Baker, ATC

Title of Protocol: Human Services Survey

Dear High School Certified Athletic Trainer,

To date there is a lack of research on burnout and high school certified athletic trainers. Thus, I am conducting a study on burnout and high school certified athletic trainers in the state of California in order to gain valuable information which could someday directly influence you and your peers.

As a certified athletic trainer in the high school setting, I realize how important your time is, however, completion of this survey could aid in the recognition and prevention of burnout among high school certified athletic trainers.

You should understand that your participation is voluntary and that choosing not to participate in this study, or in any part of this study, will not affect your relations with San Jose State University. No risks have been anticipated as a result of your participation in this study. The results of this study may be published, but any information that could result in your identification will remain anonymous. Completion and return of the following survey implies consent to utilize the anonymous information you provide. Please take a couple of minutes to complete the enclosed survey and return it within two weeks of its arrival in the enclosed self-addressed stamped envelope.

If you have any questions or concerns about this study, please feel free to contact me at (909) 515-3054, or Dr. David Furst, Thesis Chair at (408) 924-3039. Complaints about the research may be directed to Dr. Greg Payne, Department Chair, Department of Human Performance, at (408) 924-3010. Questions or complaints about the research, participants rights, or research-related injury may be presented to Pam Stacks, PhD., Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2480.

Sincerely,

Nicole L. Baker, ATC
San Jose State University

Appendix C

Survey for High School Certified Athletic Trainers

Please complete the following demographic data sheet:

Gender: ☐ Male ☐ Female

Age: _____

Years at current position: _____

Years as a certified athletic trainer: _____

Current position: ☐ Head certified athletic trainer ☐ Assistant Certified Athletic Trainer

Approximate number of hours worked per week: _____

Number of certified athletic trainers at current site (not including self): _____

Total number of athletic teams with which you work: _____

Number of competitive athletes with which you work: _____

Please check all the athletic teams you have below:

☐ Football	☐ Girls Soccer	☐ Boys Volleyball
☐ Girls Tennis	☐ Boys Soccer	☐ Golf
☐ Boys Tennis	☐ Swimming/Diving	☐ Baseball
☐ Cross Country	☐ Wrestling	☐ Softball
☐ Field Hockey	☐ Water Polo	☐ Other
☐ Girls Basketball	☐ Badminton	_____
☐ Boys Basketball	☐ Girls Volleyball	

Appendix D

Maslach Burnout Inventory

Sample Items on the Maslach Burnout Inventory

- 3. I feel fatigued when I get up in the morning and have to face another day on the job.
- 16. Working with people directly puts too much stress on me.

How Often:

0 – Never

1 – A few times a year or less

2 – Once a month or less

3 – A few times a month

4 – Once a week

5 – A few times a week

6 – Every day

Appendix E

Sample Follow-Up Post Card

Just a reminder all of you have forgotten to turn in your burnout survey. If you have yet to complete and return your survey and still plan to participate in the study, please do so within the next week. If you have already returned the survey, please disregard this post card. Thank you in advance.

Sincerely,

Nicole L. Baker, ATC