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Existence Of Burnout In Undergraduate Athletic Training Students In An Accredited Athletic Training Education Program

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Existence of Burnout in Undergraduate Athletic Training Students in an Accredited Athletic Training Education Program

(TITLE)

BY

Holli Ann Newcomer

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ABSTRACT

Existence of Burnout in Undergraduate Athletic Training Students in an Accredited Athletic Training Education Program

Athletic training is an American Medical Association (AMA) - recognized allied health care profession. With long hours, limited time off, and a variety of people to care for, this profession is one in which the athletic trainer may experience high stress loads and burnout. Burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people in some capacity (Maslach, Jackson, & Leiter, 1996). The purpose of this study was to examine undergraduate athletic training students and determine whether or not they displayed symptoms of burnout and to what extent. Thirty subjects comprised of 16 females and 14 males (16 2nd semester students, 14 4th semester students) participated in this study. All Participants completed a Maslach Burnout Inventory Human-Services Survey (MBI-HSS) consisting of 22 questions. The attributes of emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA) were scored in accordance with the MBI-HSS. The MBI-HSS uses a Likert scale rating from 0-6, 0 equaling never and 6

being everyday. (The maximum score for EE=54, DP=30, and PA=48) A demographic survey was also administered asking for age, sex, race, relationship status. Independent t-tests comparing second semester athletic training students and fourth semester athletic training students revealed no significant differences between these groups for, emotional exhaustion (EE) (p=0.96), depersonalization (DP) (p= 0.62), and personal achievement (PA) (p= 0.18). Overall differences were significant for EE (p= 0.0018) between females mean score of (=28.56 compared to males mean score of 19.86. Showing no significant differences between genders were DP (p= 0.74), and PA (p= 0.41). A comparison of semester two athletic training students by gender revealed a significant difference for EE (p= 0.01735) between females (mean score of 29.71) and males (mean score of 20.55). No significant differences were observed between males and females of the 2^{nd} semester students for either DP (p= 0.6749) or PA (p= 0.1896). The gender differences for fourth semester athletic training students was marginally significant for EE (p= 0.05) (females mean score of 27.67 versus males (mean score of 18.6). Gender differences were not statistically significant for DP (p= 0.1910) and PA (p= 0.7680) for fourth semester students.

Results suggest that the only significant differences were between males and females in emotional exhaustion comparisons between overall gender differences, second semester gender differences, and fourth semester gender differences. This study showed that with moderate EE, moderate DP, and moderate PA, undergraduate athletic training students, as a whole, demonstrated a moderate amount of burnout from their clinical assignments. In addition, overall females compared to males experienced the greatest amount of significant difference of EE (p= 0.0018) with females having a mean high level of burnout of 28.56 and males having a mean moderate level of 19.86.

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ACKNOWLEDGEMENTS

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CHAPTER I

INTRODUCTION

The phenomenon known as burnout was first described by Freudenbeger, whose office staff was experiencing a noticeable decline in quality of patient care, a gradual emotional depletion, and a loss of motivation and commitment (Freudenbeger 1974). Since then, many authors (Maslach, Jackson, & Leiter, 1999) have studied burnout in members of the helping professions, ranging from police officers to medical personnel.

In virtually all health care and human-service occupations, a clear link has been established among occupational stress, decreases in job satisfaction, signs and symptoms of burnout, and higher attrition rates. Athletic training is an American Medical Association (AMA) - recognized allied health care profession. With long hours, limited time off, and a variety of people to care for, this profession is one in which the athletic trainer in the traditional settings, high schools, universities, and professional sports, often experience high stress loads and burnout (Riter, Kaiser, & Hopkins, 2008).

Burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that

can occur among individuals who work with people in some capacity (Maslach et al.,1996). Based on a recent study 206 certified athletic trainers employed at National Collegiate Athletic Association institutions were surveyed and 32.0% reported burnout (Kania, Meyer, & Ebersole, 2009). Emotional exhaustion (feelings of being emotionally overextended and exhausted by one's work), depersonalization (an unfeeling and impersonal response toward recipients of one's service, care, treatment, or instruction) and personal accomplishment (feelings of competence and successful achievement in one's work with people) are three subsets of the psychological syndrome.

The development or exacerbation of burnout may result in many symptoms at the physiologic (eg, headaches, difficulty sleeping, poor appetite), psychological (eg, increased negative self-talk, depression, difficulty in interpersonal relationships), and/or behavioral (eg, diminished care, increased absenteeism, attrition) levels (Kania et al., 2009).

This syndrome is important to become aware of because thousands of athletic training students (ATS) provide care to student-athletes on a daily basis in various athletic training curriculum and internship sites across the United

States. Recent data indicated that more than 1000 students were enrolled in 121 National Athletic Trainers' Association (NATA) approved or Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredited undergraduate curriculums and hundreds more in nonaccredited programs (NATA JRC—AT, 2000). With that being said, it is in hopes that ATS's can recognize and prevent experiencing burnout before their careers even begin.

Keeping their course work in good standing and spending numerous hours in the athletic training room can be overwhelming especially for those students who have inexperience with time management and responsibility. Students in athletic training education programs that are experiencing burnout symptoms will benefit by becoming aware of some preventative measures to becoming burned out. In addition, it will be interesting to research and find out what can possibly be done differently in the eyes of the students to lessen the chances of experiencing burn out throughout their undergraduate careers.

Purpose of the study

The purpose of this study was to determine whether or not undergraduate ATS's displayed symptoms of burnout. Also, it was to determine differences if any between stages of education and gender. Students in ATEP's have quite a few demands imposed on them. Degrees of burnout were classified according to subset scores as high (high emotional exhaustion (EE) and depersonalization (DP), low personal accomplishment (PA)), average (moderate EE, DP, and PA), and low (low EE and DP, high PA).

Hypotheses

1. It was hypothesized that as a whole ATS's would show at least an average amount of burnout.
2 Fourth semester ATS's would show a greater level of burnout existence as opposed to the 2nd semester ATS's.
3. Females would experience higher levels of burnout versus males.

Limitations of the study

1. Limitations in this study were that the ATEP was in a transition period making available only 2nd semester and 4th semester athletic training students.
2. The relatively small sample size and lack of diversity in this sample may be a limitation.

CHAPTER II

REVIEW OF RELATED LITERATURE

Research has demonstrated that undergraduate students in other allied health professions, such as those in nursing, medical, and physical therapy school, who complete clinical hours, often experience burnout (Riter et al., 2008). The general undergraduate student population has been shown to have high stress levels that may cause students to experience burnout according to Ross (1999). Capel (1990) investigated burnout among athletic trainers and identified various sources of life stress, such as extensive time commitment, low salary, limited opportunity for career advancement, poor working conditions, job dissatisfaction, and conflicts with coworkers.

Unlike most other undergraduates, athletic training students are required to participate in clinical education experiences that include extensive instruction, skill mastery, and evaluation not unlike graduate students and professionals in other health care fields.

Athletic Training Profession

Certified Athletic Trainers

A study conducted by Kania et al., (2009) examined the relationship between selected personal and environmental characteristics and burnout among certified athletic trainers. This study used Maslachs Burnout Inventory-Human Services Survey to measure burnout among health care professionals. It has been used to measure the three dimensions of burnout; emotional exhaustion, depersonalization, and personal accomplishment. A total of 206 athletic trainers employed at National Collegiate Athletic Association (NCAA) institutions as clinical athletic trainers volunteered. It was found that 32.0% reported burnout at low to average levels. Results also indicated that of the environmental characteristics, pressure from a coach to medically clear an athlete was predictive of all three subscales of burnout, injury-type frequency was predictive of emotional exhaustion, number of sports for which the athletic trainer was primarily responsible was predictive of depersonalization, and number of athletes for whom the athletic trainer was primarily responsible was predictive of personal achievement. The

authors concluded that their findings were similar to those of other studies of burnout among NCAA Division 1 athletic trainers, coaches, and coach-teachers. In addition, all athletic trainers would benefit from learning the warning signs of burnout, and the steps to remedy this condition. Knowledge of the signs of burnout and early detection and intervention are crucial in alleviating burnout among athletic trainers and perhaps in preventing attrition and improving athlete care.

Hendrix, Acevedo, & Hebert's (2000) objective was to examine 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. One hundred eighteen certified athletic trainers working in NCAA 1-A intercollegiate settings that maintain a football program were assessed using the Hardiness Test, the Social support Questionnaire, and the Athletic Training Issues Survey. The Maslach Burnout Inventory was also used to assess the three dimensions of burnout. The authors found that athletic trainers who scored lower on hardiness and social support and higher on athletic training issues tended to have higher levels of perceived stress. Furthermore higher perceived stress

scores were related to higher emotional exhaustion and depersonalization and lower levels of personal accomplishment.

A study by Pitney (2006) was completed in order to discuss the organizational influences and quality of life issues as each relates to the professional socialization of athletic trainers working in the NCAA Division 1 setting. Results show that the participants were extremely concerned about the diminished quality of life that may result from being an athletic trainer in this context. They were, however, able to maintain a commitment to delivering quality of care to the student-athletes despite these influences. In addition, high work volume and low administrative support were commonly cited as problems, thus creating concern about diminished quality of life and the fear of burnout. The authors concluded that the athletic trainers' role not only appears to be rewarding but also challenging. The reward is working closely with patients and developing an interpersonal bond; the challenge is dealing with a bureaucratic structure and balancing one's professional and personal lives to prevent burnout. Also, it is suggested that thought should be given to using intervention strategies to lessen the negative influences on the athletic trainer's role.

Certified Graduate Athletic Training Students

Reed & Giacobbi Jr. (2004) assessed the sources of stress and coping responses of certified graduate athletic training students. Subjects included three female and three male certified graduate athletic training students who were full-time graduate students. The student's responses on stressors are being discussed and what coping strategies are being used to reduce these stressors. The authors believe this information could ultimately lead to recommendations or educational interventions to enhance the quality of life and reduce occupational burnout and attrition rates within the athletic training profession. Results included a total of 6 general sources of stress and 11 coping dimensions were revealed. The stress dimensions were labeled athletic training duties, comparing job duties, responsibilities as student, time management, social evaluation, and future concerns. The coping responses were planning, instrumental social support, adjusting to job responsibilities, positive evaluations, emotional social support, humor, wishful thinking, religion, mental or behavioral disengagement, activities outside the profession, and other outcomes. The authors concluded that certified graduate athletic training

students should be encouraged to use problem-focused (eg, seeking advice, planning) and emotion-focused (eg, positive evaluations, humor) forms of coping with stress.

Athletic Training Students

Riter et al., (2008) was interested in determining if undergraduate athletic training students enrolled in an accredited athletic training education program and participating in clinical assignments experienced burnout. It was also being looked at to what extent burnout exists when identified, and what may represent possible causes of burnout. This study comprised of 51 undergraduate ATS's and overall demonstrated moderate levels of emotional exhaustion, low levels of depersonalization and moderate levels of personal accomplishment. The authors concluded that the athletic training students demonstrated a moderate degree of burnout from their clinical assignments and associated responsibilities. The athletic training education program appeared to have a cumulative effect evidenced in the 4^{th} (+) semester with a high/average degree of burnout.

In a 2001 study; Stilger, Etzel, & Lantz examined the impact of life-stress sources that student athletic

trainers encountered over the course of an academic year, investigated the existence of sex differences in stress source symptoms, and also looked at how to provide athletic training staffs with suggestions on ways to assist student athletic trainers. They believe that certified athletic trainers who work with student athletic trainers can have a significant effect on the daily functioning and development of these future professionals. Attending to a student athletic trainer's health and welfare should be a very high priority for all faculty and staff athletic trainers in the collegiate setting. The authors suggest that faculty and staff athletic trainers can help student athletic trainers cope with stress by offering workshops on stress management to enhance the awareness of stress and its potential effects. Students can obtain emotional support through student athletic trainers' support groups or clubs. On-campus mental health professionals are usually available to provide many of these services. The authors concluded that athletic training student's stress levels fluctuated throughout the academic year. The most common stressors were academic and financial concerns. Finally, certified athletic trainers should take an interest in their athletic training students and be willing to provide assistance in times of need. It is always beneficial to see what

suggestions are being offered as a way to help students deal with stressors.

Other Medical Professions

Medical Students

Dyrbye et al., (2006) looked at personal life events and medical student burnout. The purpose of this study was to examine burnout, a marker of professional distress prevalent among residents and physicians, which has been speculated to originate in medical school. Little is known about burnout in medical students. The authors sought to identify the prevalence of burnout, variation of its prevalence during medical school, and the impact of personal life events on burnout and other types of student distress. The authors concluded that Burnout appears common among U.S. medical students and may increase by year of schooling. Despite the notion that burnout is primarily linked to work-related stress, personal life events also demonstrated a strong relationship to professional burnout. The authors' findings suggest both personal and curricular factors are related to burnout among medical students. Efforts to decrease burnout must address both of these elements.

Conducting a comprehensive assessment of how learning environment, clinical rotation factors, work-load, demographics and personal life events relate to student burnout was another study done by Dyrbye et al., (2009). There is a high prevalence of poor mental health among medical students and studies suggest that burnout syndrome is a common form of students' distress that affects up to 50% of students (Dyrbye et al., 2006). A survey was sent out to 3080 medical students at 5 schools and a total of 1701 completed the survey. Being on a hospital ward rotation or a rotation requiring overnight call was associated with burnout as well as learning climate factors. Students who experienced a positive personal life event had a lower frequency of burnout, whereas those who experienced negative personal life events did not have a higher frequency of burnout than students who did not experience a negative personal life event. The authors concluded that although a complex array of personal and professional factors influence student well-being, student satisfaction with specific characteristics of the learning environment appears to be a critical factor.

A recent 2011 study by Galan, Sanmartin, Polo, & Giner, was conducted in order to investigate the prevalence of the risk of burnout in medical students in

preclinical and clinical years of training, using the Maslach Burnout Inventory-Student Survey, specifically designed and validated to assess the burnout in university students, and secondly, to investigate the association between gender and burnout subscales. A cross-sectional study was carried out in a sample of 270 Spanish medical students—176 in the third year and 94 in the sixth year of training. Results showed that the prevalence of burnout risk was significantly higher in sixth-year students compared with students in third year of training. In addition, no significant association was found between gender and burnout scales. The authors found this to be different then other studies they had researched in that most females experience higher levels of emotional exhaustion because they tend to be more involved emotional with their patients.

Physical Therapy

Burnout is a serious concern because it can lead to psychosomatic complaints, work-associated withdrawal behaviors, and a decreased quality of care. Donohoe, Nawawi, Wilker, Schindler, & Jette (1993) seeked to determine factors associated with burnout in physical therapists at rehabilitation hospitals. Previous research

has not focused on a particular setting. A physical therapist in a rehabilitation hospital treats individual patients for an extended time period. Additionally, the therapist working in a rehabilitation setting becomes involved in the life issues of the patient and is likely to be involved with the patient's family and with issues of quality of life. In the rehabilitation setting, the therapist is apt to see the long-term consequences of disease and injury in terms of psychological and physical impairments. These role characteristics and expectations of full-time, nonadministrative, nonsupervisory, staff physical therapists working in inpatient settings in rehabilitation hospitals in Massachusetts were surveyed. The survey included demographic data, the Maslach Burnout Inventory, and questions designed to address attributes of the work environment and individual personalities. The MBI scores were calculated according to instructions provided by publishers to determine the degree of burnout experienced by this group. Questions involving personality and work environment were submitted to factor analyses. Multivariate analyses were done to determine the factors related to burnout. Results showed that 46% of the respondents scored high on the emotional exhaustion subscale of the MBI, 20% scored high on the

depersonalization subscale, and 60% scored low on the personal accomplishment subscale. As a whole, the sample demonstrated moderate burnout. Three factors emerged from the factor analysis. The factors communication/connectedness, achievement, and time constraints accounted for 69% of the variability in emotional exhaustion and 73% of the variability in depersonalization and personal accomplishment. Burnout was not significantly associated with the therapists' number of years of practice, number of years on the job, or number of patients seen daily. The authors concluded that recognition of factors contributing to burnout may prove to be instrumental in the prevention of burnout in physical therapists and the problems that arise from it.

Balogun, Pelligrini, Miller, & Katz (1999) describe that the incidence of burnout among physical therapists is now well-documented. Physical therapist burnout begins during the professional education; well before a career is established. Although the incidence of physical therapists 'burnout is well-recognized in the literature, there are no data on physical therapist students 'levels and sources of stress during their professional education. The purpose of this prospective study by Balogun et al., (1999) was to monitor physical therapist students' emotional exhaustion

(EE), depersonalization (DP), and personal achievement (PA) traits at different times during an academic semester 21 junior physical therapist students (mean age [/-SD/=24.3. years) completed the student version of the Maslach Burnout Inventory at the beginning of the semester, at mid-semester, and at the end of the semester The respondents rated each of the 22-items on the MBI on a seven-point Likert scale ranging from 0 (never) to 6 (every day). Subsequently, the EE, DP and PA scores were computed for each subject. The results showed that the students ' EE scores increased by 41% at midsemester and by 47% at the end of the semester, their DP scores increased by 20% at midsemester and by 27% at the end of the semester, and their PA scores declined by 9% at midsemester and by 5% at the end of the semester For the three time frames, the mean (iSD) EE, DP and PA scores were 30 /-11.8, 8. 77.9, and 31.4 7.5, respectively.

Nursing

Magnussen & Amundson (2003) have suggested that nursing has become very stressful, with staffing issues contributing to the decision by some to leave the profession. It has become apparent that if they are to

maintain the integrity of nursing, they must both recruit and retain qualified individuals. Students need to be nurtured and educated according to the highest standards of practice, and practicing nurses need to be treated as valued professionals.

The purpose of the present qualitative study by Magnussen & Amundson (2003) was to describe and explicate the experience of being a nursing student. Students from a variety of backgrounds were interviewed and given an opportunity to share their stories about being a nursing student. These stories provided insight into the satisfactions, challenges and stresses faced by students. Findings included four major theme clusters from the data: (i) meeting conflicting demands; (ii) feeling overworked; (iii) feeling unprepared and; (iv) seeking respect and support from one's faculty. During the interviews the participants became very animated and clearly very engaged in the process of being a nursing student. Along with this excitement, however, each participant was obviously feeling a high level of stress. They shared a high degree of emotion with teary eyes and choked voices when talking about some of their most pressing worries. They expressed appreciation that the researchers were interested in finding out about their lives. The authors concluded that

Student's stories provide insights about the current educational environment which can assist faculty in understanding the impact of their pedagogical approaches. As faculty continue to look for ways to provide challenging and satisfying learning experiences for students, it is apparent that we need to include students in the process.

In a study done by Deary, Watson, & Hogston (2003) it is well-established that stress is likely to contribute to attrition in nursing students. Attrition from nursing programs and retention of nurses in the profession are international concerns and steps are currently being taken in the United Kingdom to tackle these issues. The aim of this study was to investigate prospectively the determinants of, and relationships among, stress, burnout and attrition in nursing students. A longitudinal design involving a complete cohort of nursing students was employed, using a battery of instruments to measure personality, intelligence, psychological morbidity, stress, coping and burnout. Data was gathered on entry, at 12 and 24 months, and at the end of the nursing programs. Authors found that students experienced increasing levels of stress and use of negative coping mechanisms as the program progressed and psychological morbidity increased. Positive aspects of personality were more likely to lead to aspects

of burnout, and personality was a more important indicator of attrition than cognitive ability. It was concluded that stress, burnout and attrition may not be directly linked. Personality factors at course entry contributed significantly to the prediction of burnout and program completion. The authors also indicated that the relationships were not strong enough to be practically useful.

In summary, it can be seen from published works that students in health care profession programs feel some stress as they embark on the road to professional competence. Furthermore, students should be informed of the campus resources available to help them address these resources. A better approach may be the use of a stress management workshop, specifically geared to the stressors encountered by college students. Certainly, stress in the college setting cannot be eliminated but we can and should do a better job preparing our students to manage it (Ross et al. 1999).

CHAPTER III

METHODS

This study examined undergraduate ATS's and whether or not they displayed symptoms of burnout. In addition, 2nd semester students were compared with 4th semesters students on the degrees of burnout. Comparisons were also made by gender for the entire subject pool and also within the 2nd and 4th semester student sub-groups.

Participants

Thirty undergraduate athletic training students enrolled in a Commission on Accreditation of Athletic Training Education (CAATE) accredited athletic training education program were recruited for this study. Sixteen athletic training students were in their 2nd semester of the program while the other fourteen were in their 4th semester. All students involved in this study were currently working in their clinical education assignment. Assignments included their particular sport they were working with and their monthly clinical proficiencies.

Procedures

All Participants completed a Maslach Burnout Inventory Human Services Survey (MBI-HSS) (Maslach et al., 1999) (*Appendix B*). Emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA) were scored in accordance with the MBI-HSS. A demographic survey (*Appendix C*) was also administered determining age, sex, race, relationship status, leisure time, current stress level, semester in the program, if they were currently working with an in season or out of season sport, weekly hours in the training room, and how many credit hours they were currently taking for their course load. Permission for administering the surveys during specified classes was obtained from the clinical education instructor and the program director of the athletic training education program. During the students lab times the informed consent (*Appendix A*) was read to them as the program director passed out the surveys. When completed, students turned in facedown the surveys without their names and were then collected by the program director.

Measures

The MBI-HSS uses a Likert scale rating from 0-6, 0 equaling never and 6 being everyday. The maximum score for EE=54, DP=30, and PA=48. The MBI-HSS is a validated and reliable instrument, and is one of the most commonly used measuring tools to determine professional burnout (Maslach, et al., 1999). The categorization of high, average, or low burnout for medical occupations is shown in Table 1.

Data Analysis

The three subsets of burnout: emotional exhaustion, depersonalization, and personal achievement were analyzed. Independent T-tests were conducted to reveal significant differences between second semester athletic training students and fourth semester athletic training students. Independent T-tests were also used to see overall gender differences between the three subsets of burnout, and gender differences within each semester. Descriptive statistics (ie, mean, SD, etc…) were calculated for burnout variables to show the degree of burnout

Table 1: Scoring Criteria for the Maslach Burnout inventory-Human Services Survey for Medical Occupations.

	Burnout		
	High	Average	Low
Emotional Exhaustion	≥27	19-26	≤18
Depersonalization	≥10	6-9	≤5
Personal Accomplishment	≤33	39-34	≥40

CHAPTER IV

RESULTS & DISCUSSION

This study examined undergraduate ATS's and whether or not they displayed symptoms of burnout. In addition, 2nd semester students were compared with 4th semesters students on the degrees of burnout. Comparisons were also made by gender for the entire subject pool and also within the 2nd and 4th semester student sub-groups.

Descriptive Characteristics of Subjects

Thirty undergraduate athletic training students participated in this study. All students involved were currently working in their clinical education assignment in either their 2nd or 4th semester. The descriptive statistics for the undergraduate athletic training students (n=30) burnout level for the three subscales are displayed in Table 2. In addition, the demographics of the participants are identified in Table 3.

Table 2: Results of the Maslach Burnout Inventory-Human Services Survey for Undergraduate Athletic Training Students (n=30)

	Mean ± SD		Max	Min	Mode
Emotional Exhaustion	24.5	8.09	42	8	21
Depersonalization	7.23	4.56	19	0	8
Personal Accomplishment	36.33	5.09	46	26	37

Statistical Analysis

Independent t-tests for second semester athletic training students and fourth semester athletic training students revealed no statistically significant differences in mean scores for the sub-categories of emotional exhaustion, depersonalization, and personal accomplishment. However, independent t-tests did show a significant difference by gender for emotional exhaustion.

Emotional Exhaustion

Undergraduate athletic training students demonstrated average levels of emotional exhaustion (EE) with a mean score of 24.5. Scores for EE were not significantly different between semester two athletic training students and semester four athletic training students (p= 0.9648). Second semester students showed average levels of EE (24.56) compared to fourth semester students who also showed moderate levels at (24.43).

Overall EE gender differences showed a significant difference (p= 0.0018). Females (n=16) showed significantly higher scores for EE (28.56) compared to males (n=14) who showed moderate levels (19.86). These results indicate that the females show some degree of emotional exhaustion while the males show average levels. (Figure 1).

Semester two gender differences of EE showed a significant difference as well (p= 0.0173). Second semester females (n=7) showed high levels of EE (29.71) compared to second semester males (n=9) with a mean score of 20.55 showing average levels of EE (Figure 1).

Approaching significant difference at (p=0.0501) is semester 4 gender differences. Females (n=9) experienced

high levels of EE with a mean score of 37.67 while males (n=5) showed moderate levels at a mean score of 18.6 (Figure 1).

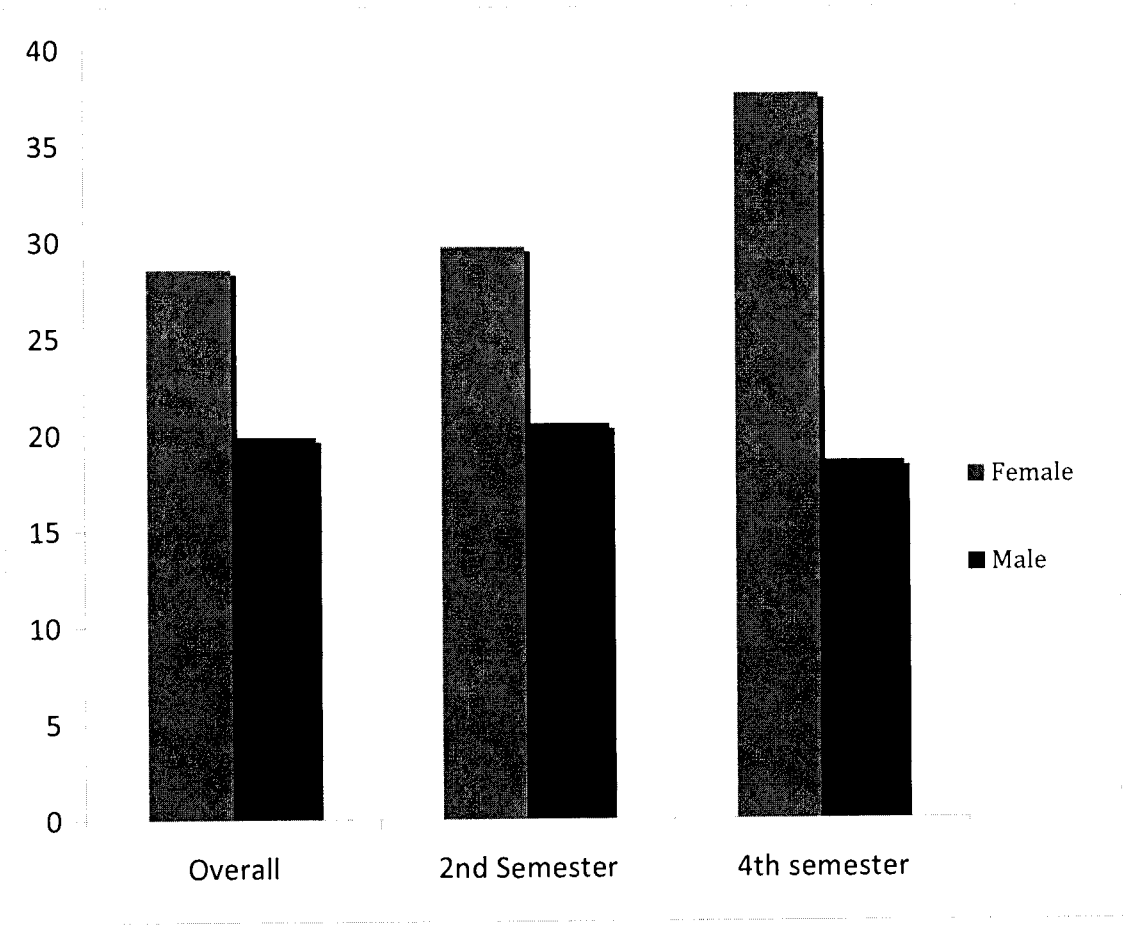

Figure 1. Emotional Exhaustion Scores for Gender and Semester (Maximum score for EE is 54)

Depersonalization

The mean depersonalization (DP) score for undergraduate athletic training students showed average levels (7.23). DP showed no significant differences between second semester athletic training students (n=16) and fourth semester athletic training students (n=14) (p= 0.6236) (Figure 2).

Overall DP gender differences showed no significant difference (p= 0.7386). Females (n=16) showed moderate levels of DP (7.5) compared to males (n=14) who also showed moderate levels (6.92) (Figure 2).

Semester two gender differences of DP showed no significant difference(p= 0.6749). Second semester females (n=7) showed moderate levels of DP (7) compared to second semester males (n=9) with a mean score of 8.11 showing average levels of DP (Figure 2).

In addition, there was no significant difference (p=0.1911) by gender for semester four students. Females (n=9) experienced average levels of DP with a mean score of 7.88 while males (n=5) showed low levels at a mean score of 4.8 (Figure 2).

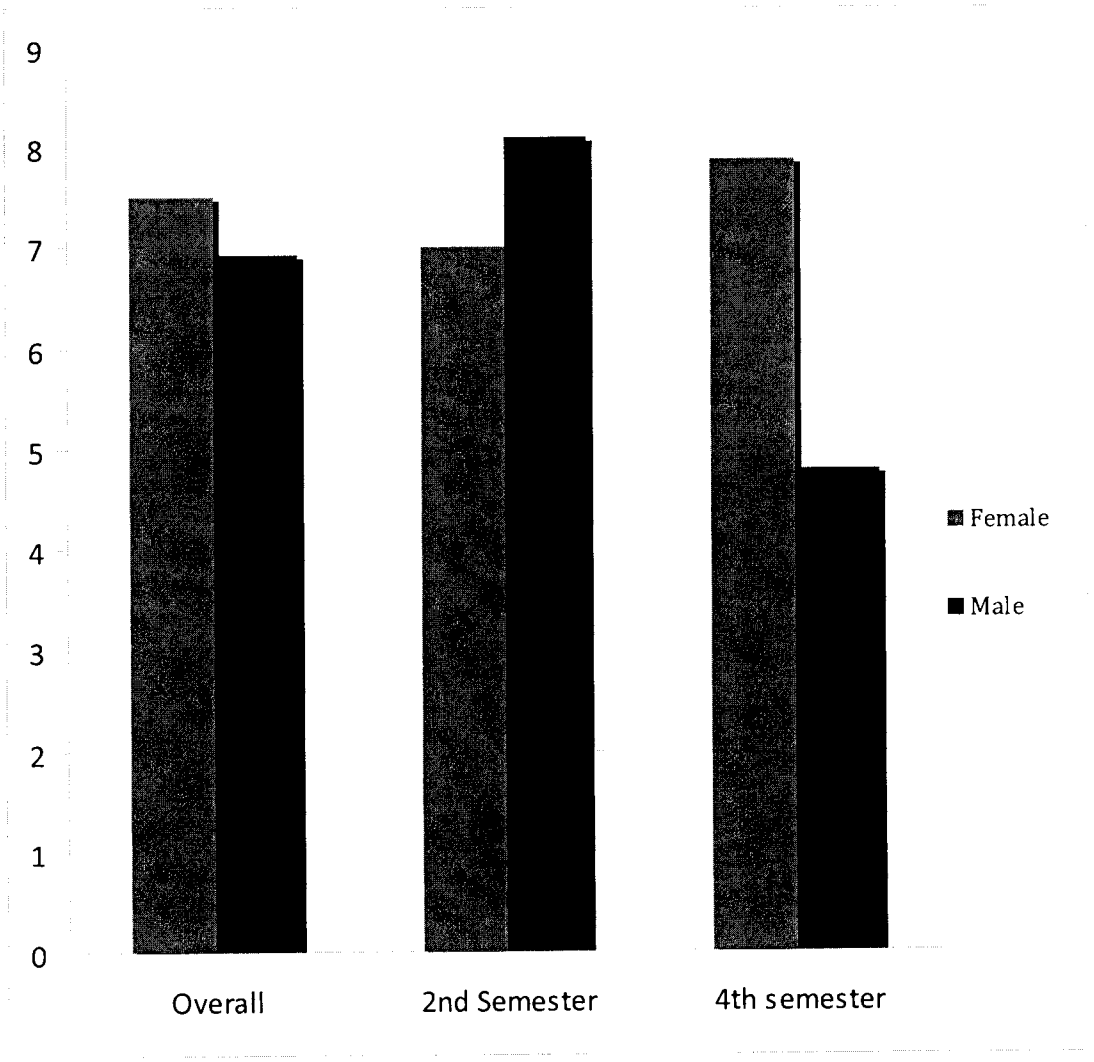

Figure 2. Depersonalization Scores for Gender and Semester (Maximum score for EE is 30).

Personal Accomplishment

Personal accomplishment is scored in the opposite direction of DP and EE. Therefore, a lower score displays a higher degree of personal accomplishment (PA) and a higher score displays a lower degree of PA. PA scores of

undergraduate athletic training students showed moderate levels with a mean score of 36.33.

PA like DP also showed no significant differences between second semester athletic training students and fourth semester athletic training students (p= 0.1839).

Overall PA gender differences showed no significant difference (p= 0.4109). Females (n=16) showed average levels of PA (37.06) compared to males (n=14) who also showed average levels (35.5) (Figure 3).

Semester two gender differences of PA showed no significant difference as well (p= 0.1896). Second semester females (n=7) showed high average levels of PA (39.29) compared to second semester males (n=9) with a mean score of 36.11 showing average levels of PA (Figure 3).

Once more, showing no significant difference at (p=0.7680) is semester 4 gender differences. Females (n=9) experienced average levels of PA with a mean score of 35.33 while males (n=5) showed average levels as well at a mean score of 34.4 (Figure 3).

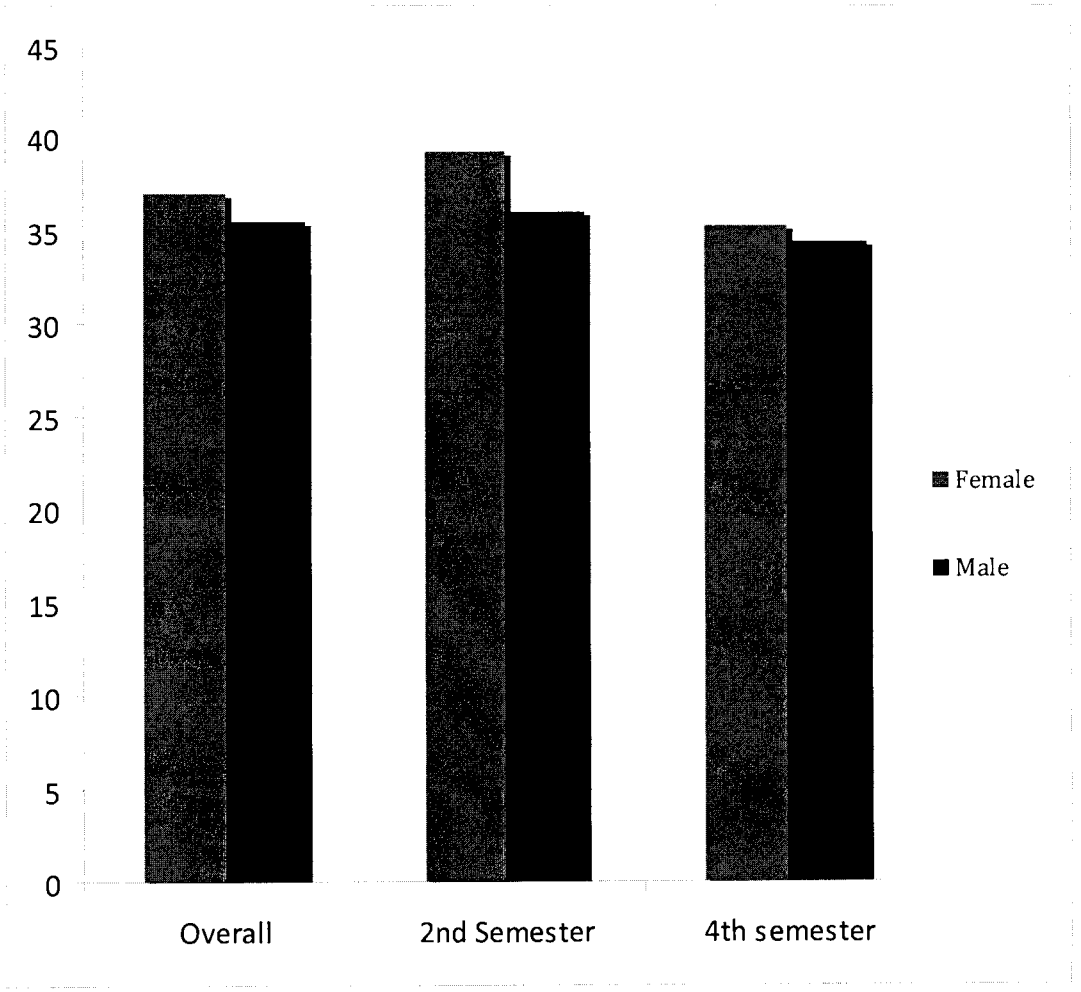

Figure 3. Personal Accomplishment Scores for Gender and Semester (Maximum score for PA is 48, recall that higher levels of PA are indicative of lower signs of burnout).

Table 3: ParticipantDemographics

Characteristic	2nd Semester	4th Semester	n	%
Age, y				
18-19	2	0	2	6.7
20-21	12	9	21	70
22-23	2	4	6	20
24-25	--	--	--	--
26-27	--	--	--	--
28-29	--	1	1	3.3
Sex				
Female	7	9	16	53
Male	9	5	14	47
Race				
Caucasian	16	13	29	96.7
Asian	--	1	1	3.3
Relationship Status				
Single	12	11	23	76.7
Long-Term	4	3	7	23.3
Job				
Yes	4	2	6	20
No	12	12	24	80
Training Rm d/wk				
0-1	--	--	--	--
2-3	2	4	6	20
4-5	4	7	11	36.7
6-7	10	3	13	43.3
Training Rm h/wk				
<10	--	--	--	--
10-14	--	--	--	--
15-19	2	6	8	26.7
20-24	2	2	4	13.3
25-29	6	3	9	
30				
30-34	1	1	2	6.7
35-39	5	2	7	23.3
Leisure Time h/wk				
<10	6	4	10	33.3
10-14	7	10	17	56.7
15-19	2	--	2	6.7
20-24	--	--	--	--
25-29	--	--	--	--
30-34	1	--	1	3.3
35-39	--	--	--	--

Discussion

It was hypothesized that overall athletic training students would show signs of burnout. Also, that fourth semester athletic training students would show a greater level of burnout existence as opposed to the second semester athletic training students. It was also hypothesized that female athletic training students would experience higher levels of burnout than male athletic training students.

It would be likely that 4th semester students had more stress imposed on them during one of their last semesters in the program. They not only had their coursework and clinical assignments to be concerned about, they would also be quickly approaching their senior exit exam, graduation, and the Board of Certification test.

A high degree of burnout is reflected in high scores on the Emotional Exhaustion and Depersonalization subscales and in low scores on the Personal Accomplishment subscale. An average or moderate degree of burnout is reflected in averages scores on the three subscales. Finally, a low degree of burnout is reflected in low scores on the Emotional Exhaustion and Depersonalization subscales and in high scores on the Personal Accomplishment.

Emotional Exhaustion, Depersonalization, and Personal Accomplishment overall showed moderate levels of burnout in undergraduate athletic training students. Athletic training students overall showed higher EE and DP than post-secondary educators (EE = 18.57; DP = 5.57), medical workers (EE = 22.19; DP = 7.12), mental health workers (EE = 16.89; DP = 5.72), and other professionals (Maslach, et al.).

There were no significant differences between second semester athletic training students and fourth semester athletic training students in any of the three subscales of burnout. The most significant difference overall occurred between males (n=14) and females (n=16) in EE showed a significant difference (p= 0.0018). Females showed high levels of EE (28.56) compared to males who showed moderate levels (19.86). Females may be more emotional in their responses to stress, and may explain a higher emotional exhaustion level. Furthermore, women derive much of their self-esteem from relationships and can be emotionally connected with athletes, coaches, and a significant other (Dehart, Pelham, & Murray, 2004).

One reason for lower levels of burnout in some of the athletic training students was that they might have been able to determine the purpose of the study rather easily.

Reading items on the MBI-HSS (eg, "I feel emotionally drained from my work," "I feel burned out from my work," and "I feel like I am at the end of my rope") may allowed the students to realize what kind of survey they were taking. Not being able to mask the purpose of the study may have had an effect on the accuracy of the data (eg, self-report bias, social desirability bias) (Kania et, al. 2009).

Maslach and Jackson determined that burnout only has to be looked at once in order to determine the existence of burnout and to what extent it is present. Although it is possible to determine if the students showed symptoms of burnout in one testing session it may have been beneficial to test the students through out the semester or before and after the full year. Testing at the beginning of the semester right after a long summer break might lead the students to answer the questions differently since they are newly getting back into the swing of things. Likewise, if the athletic training students were to be tested when they returned from a holiday break answers might also be different because there is less time between semesters and they would feel more or less as if they never got a break from fall to spring semester.

One of the characteristics that were looked at in the demographic survey was whether the students held a job outside of school and outside their clinical assignment. Twenty percent of the students reported that they did hold a job outside of school and of that 20%, 85% of them were female. This is perhaps a contributing factor as to why females were experiencing such a greater deal of emotional exhaustion as compared to the males. Dealing with everything that comes along with being an athletic training student and adding a job on top of that can certainly call for added exhaustion.

Another characteristic that was looked at was relationship status. The survey shows that 23.3% reported of being in a long-term relationship, while 76.7% stated that they were single. However, of that 23.3%, 71% were females that were in a long-term relationship. Relationships can sometimes be no easy task, and can certainly be expected to sometimes have emotional difficulties.

Based on the questions asked in the demographic survey the two that are most possible reasons for the significant difference between genders emotional exhaustion scores were the relationship status and having a job outside of school. Ultimately, there were no significant differences between

second semester athletic training students and fourth semester athletic training students in any of the three subscales of burnout.

CHAPTER V

SUMMARY & CONCLUSIONS

Summary & Conclusion

The purpose of this study was to examine undergraduate ATS's and find out whether or not they displayed or had previously experienced symptoms of burnout. It was hypothesized that the fourth semester athletic training students would show a greater level burnout existence as opposed to the second semester athletic training students.

This study showed that with moderate EE, moderate DP, and moderate PA, undergraduate athletic training students, as a whole, demonstrated a moderate amount of burnout from their clinical assignments. In addition, overall females compared to males experienced the greatest amount of significant difference of EE (p= 0.0018) with females having a mean high level or burnout of 28.56 and males having a mean moderate level of 19.86. Athletic training students overall showed higher EE and DP than post-secondary educators(EE = 18.57; DP = 5.57), medical workers (EE = 22.19; DP = 7.12), mental health workers (EE = 16.89; DP = 5.72), and other professionals (Maslach, et al.).

Recommendations for Future Studies

Future research should be conducted to see if similar results are found with athletic training students at other ATEP's and different divisions. In addition, further research should include a greater number of students within all semesters of the program. Also, more than one school should be used in the research.

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APPENDECES

Informed Consent

This research is being conducted in partial fulfillment of the requirements for a Master of Science in Kinesiology and Sports Studies. All information will remain anonymous and confidential. Completion of the survey will serve as the indication that you the subject voluntarily agrees to participate in this study. All students involved in this study need to be currently working in their clinical education assignment in either their 2nd or 4th semester. There is no particular gender or ethnicity qualification to participate in this study.

By completing this survey, you are indicating your voluntary consent to use the information provided in this study. If you do not wish to participate, please return the survey to the researcher. All information will remain anonymous and confidential. You may choose to terminate your participation at any time without prejudice.

Undergraduate Athletic Training Students

For the following survey, please respond with a 0-6 for each question. Each question is referring to how often a feeling or attitude occurs. Please indicate how often as indicated below:

0	1	2	3	4	5	6
Never	Few times A year or Less	Once a month or less	Few times a month	Once a week or less	Few times a week	Everyday

1. I feel emotionally drained from my work.

___

2. I feel used up at the end of the workday.

___

3. I feel fatigued when I get up in the morning and have to face another day on the job.

___

4. I can easily understand how my recipients feel about things.

___

5. I feel I treat some recipients as if they were impersonal objects.

___

6. Working with people all day is really a strain for me.

___

7. I deal very effectively with the problems of my recipients.

___

8. I feel burned out from my work.

___

9. I feel I am positively influencing other people's lives through my work.

___

10. I have become more callous toward people since I took this job.

___

11. I worry that this job is hardening me emotionally.

___

12. I feel very energetic.

___

13. I feel frustrated by my job.

___

14. I feel I am working too hard on my job.

___

15. I do not really care what happens to some recipients.

___

16. Working with people directly puts too much stress on me.

___

17. I can easily create a relaxed atmosphere with my recipients.

___

18. I feel exhilarated after working closely with my recipients.

___

19. I have accomplished many worthwhile things in this job.

___

20. I feel like I am at the end of my rope.

___

21. In my work, I deal with emotional problems very calm.

___

22. I feel recipients blame me for some of their problems.

___

Undergraduate Athletic Training Student - Demographic Information

Please circle/list the appropriate answers:

Gender (circle one)

Male Female

Race (circle one)

African American Asian-American Hispanic/LatinoNative Hawaiian/other Pacific Islander White/Caucasian Other/mixed

Age _____

How many credit hours are you taking this semester?

_____

What semester are you currently in for the ATEP?

_____

What is the current sport you are assisting with this semester? _____

What is the current part of season your sport you are assisting with is in? (circle one)

In season Off season

Relationship Status (circle one)

Single Long-Term exclusive Married Divorced

How many children do you have? _____

On average how many days per week are you working in the training room? (circle one)

0-1 2-3 4-5 6-7

On average how many hours per week are you working in the training room? (circle one)

<10 10-14 15-19 20-24 25-29
30-34 35-39

On average how many hours per week do you spend on leisure time? (circle one)

<10 10-14 15-19 20-24 25-29
30-34 35-39

Please list the current classes you are taking this semester and rank them in order from least amount of stress to greatest amount of stress.

1. _____
2. _____
3. _____
4. _____
5. _____