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EARLY INTERVENTION: A Study of Stress Among
Undergraduate Students At PSU And A Proposal
For Stress Management In The Future

A Thesis
Presented to
the Chancellor's Scholars Council
of Pembroke State University

In Partial Fulfillment
of the Requirements for Completion of
the Chancellor's Scholars Program

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May 4, 1992

CSP
Advisor's Approval Robert R. Rouse
Date 5 May 1992

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I. Introduction and Acknowledgements

In the past several years, an increasing number of illnesses have been traced to stress. Such illnesses are contributing to the already high cost of health care in the U.S. Businesses also suffer as a result of stress-related illnesses. In 1987, stress-related worker's compensation claims accounted for 14% of occupational disease claims. In 1980, that number was less than 5%. Workers suffering from stress are typically out of work a long time and need a lot of rehabilitation, including costly visits to psychiatrists. In medical treatment and time lost, stress cases cost, on average, twice as much as other workplace injuries: more than \$15,000 each. (LaMan, 61) This problem could continue to increase to greater proportions unless people learn and practice stress management techniques.

Professionals today are faced with roles that are often numerous and conflicting. They often lack the necessary tools to deal with these high pressure situations--tools that would improve their careers by reducing stress and preventing burnout. I wanted to find out if students are experiencing stress also, if

they are at risk of developing a stress-related illness, and whether they possess effective skills to cope with stress.

This research involves a study of business and pre-law students enrolled at Pembroke State University. It was accomplished by the distribution of two surveys. One survey measured the students' likelihood of developing a stress-related illness in the next year. The second survey assessed each student's ability to cope with stress.

The first part of this study discusses the causes of stress, the differences between good and bad stress, the physical and mental aspects of stress including burnout, and the reasons stress causes sickness. The second part of the study discusses a survey that was distributed to business and pre-law classes at Pembroke State University. The third part of the study analyzes the results obtained from the survey, and in the fourth part, the professions of law, accounting, and management are analyzed. The pressures inherent in these professions, and some suggestions to relieve these pressures are also discussed. Finally, I will conclude the study with a recommendation to address stress management techniques during the University Orientation curriculum.

I'd like to thank the CSP Council for allowing me to be a part of this group. Being a Chancellor's Scholar has enriched my college career by enabling me to enroll in special classes. These classes have broadened my interests and allowed me to develop an appreciation for the subjects taught. I also thank Dr. Carolyn Roberts, my faculty advisor, and Dr. Robert Brown, my CSP advisor for providing direction and support during my work on this thesis. The following instructors aided in my research by distributing surveys in their classes: Dr. James Bardsley, Mrs. Sharon Bell, Dr. Carolyn Roberts, Mr. Terry Hutchins, and Dr. Robert Schneider. Dr. Ray Von Beatty assisted me on the proper survey instruments to distribute.

II. Literature Review

The word "stress" comes from the Latin word "stringere", which means "to draw tight". It refers to the responses that occur in the body as a result of what is called a stressor. It is the body's way of reacting to any demand made on it. Dr. Hans Selye, biologist and endocrinologist, points out that stress is caused by stressors that may be physical, social, or psychological and negative or positive in nature. He called responses to positive stressors eustress and reactions to negative stressors distress. There are many different types of stressors. Psychological stressors arouse emotions such as fear, anger, and love. Worrying, vigorous exercise, strenuous sports activities, and illness are all stressors. Other types of stressors are bioecologic (noise, heat and cold), environmental (air pollution, overcrowding), social (family or financial problems) and physiologic (caffeine, sugar and salt). (Prentice, 230)

It is ironic that so many of us consider our lives stress-filled. After all, we probably have more labor-saving devices, money, and free time than our ancestors ever dreamed possible. Modern stress problems occur because life-styles have changed faster than our

bodies have been able to adapt. The human body was built to cope with stressful events with a "fight or flight" response. When our ancestors faced stress in the form of a pack of wolves at the cave door, their bodies prepared for it by pumping adrenaline and other hormones into the bloodstream. Their bodies returned to a normal state once the situation with the wolves was resolved, by either fighting them or fleeing from them. Today, our bodies prepare for stress in the same way, but now we have to learn to control our emotions instead of fighting or fleeing. (Brinley, 107)

Stress is a part of everyday life. It is not all bad. Good stress can help one meet deadlines, perfect presentations, and prepare outstanding reports. Stress can help you concentrate, focus, and perform at peak efficiency. Good stress motivates us to think clearly, act decisively, and feel challenged. Many people do their best work under pressure, and then relax and enjoy their achievements when the challenge has been met. This relaxation response allows them to replenish the physical and emotional reserves to meet the next challenge, and is one of the key elements of positive stress. (Brinley, 108)

Your body's response to stress prepares you to meet an immediate, recognizable challenge. Positive stress

is a series of arousal and relaxation responses that help you deal with the challenges of daily life. Positive and negative stress evoke the same responses from your body, but in negative stress, there is no true relaxation between one crisis and the next. This can result in physical and emotional strain.

How we respond to stressors depends on two things: our general approach to life, and the number of stressors we encounter at once. Research shows that we can learn to change our outlook on life, and convert bad stressors into good ones. A certain amount of stress is healthy, and can stimulate action and evoke feelings of excitement and enthusiasm. However, when it is not diffused quickly, stress brings a long list of troubles. (Withers, 143)

People under stress tend to display certain warning signs that vary from one person to the next. The signs of distress affect certain organic systems of the body. For example, heart palpitations are cardiovascular in nature, vomiting is gastrointestinal, breathlessness is respiratory, headaches, fatigue, and trembling hands reflect muscular tension. Some signs of stress reflect conscious feelings, such as being fearful, crying, mental disorientation and confusion. Other signs of stress include depression and anxiety, insomnia, back

and neck pain, loss of appetite, nightmares, and fatigue. (Prentice, 230-31)

Some people increase the number of cigarettes they smoke. However, smoking actually increases stress because nicotine increases heart rate and temporarily raises blood pressure and raises cholesterol levels. An increase in alcohol consumption can also be a warning sign of stress. This is especially dangerous because drinking does provide relaxation and permits a person to relax and forget some of the things that are causing stress. This can lead to more drinking, which may result in alcoholism. (Prentice, 233) Smoking and drinking alcohol are two ineffective ways of dealing with stress because they can create problems and provide you with more stress.

Dr. Selye described the body's response to stress as a three stage pattern of alarm, resistance, and exhaustion, called the general adaptation syndrome. In the alarm stage, the body mechanisms are mobilized. There is muscle tension, a queasy feeling in the stomach, dryness of the mouth, and rapid pulse. The pituitary and adrenal glands secrete various hormones which speed up the heartbeat and constrict blood vessels. Respiration and blood pressure increases. Digestion is slowed or stopped altogether. The pupils of the eyes dilate. Adrenaline is released into the

bloodstream and blood sugar is released from the liver. These changes are what were referred to as the "fight or flight" syndrome. The body adjusts to stress and appears to return to its normal state of equilibrium during the second, or resistance, stage. The pituitary gland and adrenal cortex secrete hormones which combine to provide energy, which helps the body cope with the stressful situation. During this stage, the body is best able to withstand the stressor. Depending on the person, the resistance stage may last for several days or even longer. The third stage, exhaustion, sets in if stress continues for a long time. The hormones secreted by the pituitary gland to counter stress begin to weaken. Some of the symptoms from the alarm stage reappear. During this stage, the person becomes progressively devitalized and loses the ability to resist stress. Body functions are weakened, and this stage, if it continues, can result in death. (Prentice, 232)

Stress affects various body systems. It commonly affects the digestive system. Indigestion is the result of a change in the rhythmic contractions of the muscle valves at the entrance and exit of the stomach. Muscle spasms can result under stress, causing the upper valve of the stomach to become partially closed. When the

muscles of the esophagus then contract to force food through the narrow valve, pain and indigestion result. Stress also affects the cardiovascular system. Heart rate and stroke volume increase, causing greater cardiac output. Blood vessels in the skin, kidneys, and internal organs become constricted, decreasing blood flow to these areas. At the same time, blood vessels in the skeletal muscles dilate, increasing the flow of blood to them. Hypertension results from an increase in blood pressure and the volume of blood that is circulating. (Prentice, 234)

Women are inherently vulnerable to the problems of stress-induced illnesses, according to Frances M. Love, MD, a specialist in occupational medicine with the National Institute of Occupational Safety (NIOSH). In a study of 130 occupations by the NIOSH, secretaries who use word processing machines faced higher stress than all other groups, including air traffic controllers. Some of the physical side effects often cited by women are yeast infections, head colds, endometriosis, infertility, migraines, irritable bowels, skin rashes, ulcers, and breast lumps. According to Dr. Reed Moskowitz, the psychiatrist who directs the New York University Hospital Stress Disorders Medical Services, seventy-five percent of the visits to the doctor are

stress-related. (Brinley, 88) Mainstream medical practitioners can pinpoint the biochemical link between your immune system and stress and how it makes you susceptible to colds and even more serious illnesses like heart disease, hypertension, and cancer. (Brinley, 107)

Closely related to stress is burnout. Burnout can be defined as a maladaptive reaction to high levels of chronic work-related stress. (Wallace, 85) Occupational stress is a condition in which certain factors in the workplace negatively affect an individual's normal behavior or performance due to high levels of anxiety or concern. Burnout refers to the individual worker's inability to respond adequately to perceived demands. One dimension of burnout is emotional exhaustion. This is the feeling of being emotionally over-extended and exhausted by one's work and is usually accompanied by physical exhaustion. Emotional exhaustion is related to stress arising in the job. (Wallace, 86-87)

Often, workers must stay out of work as a result of emotional exhaustion and burnout, and many times they file workers compensation claims. In fact, the fastest growing category of worker's compensation cases is stress claims. In 1980, less than 5% of cases reported were stress-related. In 1989, they accounted for 15% of

all workers compensation claims. The most frequently cited causes of mental stress claims are job pressures and harassment, but additional sources include workload and time pressure, management quality, workplace relationships, customer contact, and job insecurity. The average payment for a stress-related workers compensation claim is \$15,000. However, both the dollar amount and the number of claims reported are expected to increase dramatically over the next few years, boosting job-related stress claims to the top of the occupational disease field. (LaMan, 61)

Some states, such as California, compensate for "mental-mental injuries". In these cases, an intangible (mental) injury results from an intangible (mental) cause such as stress. Recently, the number of stress-related claims has begun to decline in California, but dollar costs nationally continue to rise. According to Donna Dell, manager of employee relations for Wells Fargo Bank, workers suffering from stress are typically out a long time and need lots of rehabilitation, including costly visits to psychiatrists. In medical treatment and time lost, stress cases generally cost twice as much as other workplace injuries (more than \$15,000 each). (Farnham, 71-72)

III. Conception and Design of Study

Stress is a controversial issue in the workplace. For those who experience stress and do not deal with it effectively, its impact can be enormous.

University students also experience stress. As an accounting major with an interest in law, I wanted to find out how much stress other business and pre-law majors are experiencing, and whether or not they possess effective coping skills. The purpose of this study is to predict how well these students will perform in the workplace, given the particular pressures inherent in these professions. Before distribution of the survey, I submitted a proposal to PSU's Institutional Review Board for Research Involving Human Subjects, and was granted permission on February 5, 1992.

The first part of the study was designed to measure the amount of stress, by determining each student's chance of developing a stress-related illness. This was accomplished by distributing a copy of the "Life Stress Scale". This scale is based on the premise that psychological challenges or stressors are measurable. It was developed by two psychiatric researchers from the University of Washington Medical School. Drs. Thomas Holmes and Richard Rahe interviewed 400 individuals and asked them to rate various life events on a scale of 1

to 100, in which marriage was arbitrarily set at 50.
(Truch, 50)

The Life Stress Scale has gathered critics. These researchers did not differentiate between positive and negative aspects of social change. The critics feel that positive and negative life stressors do produce different effects. However, for the purposes of this study, the Holmes and Rahe Life Stress Scale is an adequate tool for measuring each student's chance of developing a stress-related illness in the next year.

Holmes and Rahe developed a method for scoring their survey. They indicate that a total of 150 or fewer life change units in a year will generate only a 38% chance of illness in the next year. Greater risks result from higher scores. Scores between 150 and 300 present a 50% chance, while scores over 300 increase the risk of developing a stress-related illness to 80-90%. (Truch, 51) The results from this part of the survey were obtained by totaling the life change units of each student and comparing this with the scale set forth by Holmes and Rahe. For example, if a student completed the survey, and indicated that items 5, 12, 16, 20, 34, and 42 had happened in the last year, his score would be totaled as follows:

Item	Event	Life Change Units
5	Death of a close family member	63
12	Pregnancy	40
16	Change in financial state	38
20	Mortgage over \$10,000	31
34	Change in recreation	19
42	Christmas	12
		203

This student has a total of 203 life change units.

Therefore, according to Holmes and Rahe, the student has a 50% chance of developing a stress-related illness in the next year.

The second part of the study was designed to determine how well each student copes with stress. The survey requires that the student answer the question, "How often do I use this as a means to cope with stress?", followed by 14 techniques that can be used to handle stress. The responses associated with each technique are: Never, Rarely, Sometimes, Often, and Always. The even-numbered techniques are examples of effective coping methods, whereas the odd-numbered items are examples of ineffective coping methods. For

example, items 3 through 6 appeared as follows:

- | | | | | | |
|---|---|---|---|---|---|
| 3. Eat compulsively or drink alcohol or caffeine. | N | R | S | O | A |
| 4. Look more lightly at the situation. | N | R | S | O | A |
| 5. Light up a cigarette. | N | R | S | O | A |
| 6. Try to use time well. Prioritize my needs. | N | R | S | O | A |

Items 3 and 5 are examples of ineffective coping skills, and items 4 and 6 are ways to effectively cope with stress. For each student, the number of "Often" and "Always" responses for even-numbered items is compared with the number of "Often" and "Always" responses for the odd-numbered items. The students who had more "O" and "A" responses for even-numbered items were designated as having effective coping skills, while those who responded with more "O's" and "A's" for odd-numbered items were recognized as having ineffective coping skills. (Prentice, 251)

Other characteristics of interest in this study are the sex of the participants and whether or not they have children. These factors are important because males and females often face different challenges in the workplace and therefore different sources of stress. Parents must also deal with special problems such as childcare and multiple roles (being both parent and employee). These figures were obtained through the

distribution of a demographics sheet which each participant was asked to complete. The questions included on this sheet were the participant's classification, age, sex, marital status, number of children, major, career goal, employment status, and type of housing. The last three questions on the demographics sheet were designed to discover whether the student is familiar with stress management techniques, whether they are currently using these techniques, and whether the student is interested in learning more about stress management. This information was important to determine whether the students felt the need to learn stress management techniques, or whether they needed to learn more about the techniques.

The population surveyed consisted of students enrolled in the following classes at Pembroke State University for the spring quarter of 1992: BUS 312, Sections 01 and 02; BUS 227, Sections 01 and 02; BUS 228, Sections 01 and 02; BUS 303; BUS 315; and PLS 310, Section 01. To avoid any possible overlap, students who may have completed a survey in one class were asked not to complete a second one in another class.

IV. Survey Results

This portion of my thesis will report the results obtained with both the Holmes and Rahe Life Stress Scale and the coping mechanisms survey. First I will present this data for the entire population. Then I will present the data for the professions of law, accounting and management professions.

The survey's final population focuses on accounting, management, and pre-law majors. A total of 153 students responded to the survey for this study. Thirty-two of the responses were rejected from the population. 19 were rejected because their majors were not related to business or law. 10 were rejected because their majors were Business Administration. Three responses were rejected due to undecided majors. 121 survey were completed by accounting, management, or pre-law students and therefore were not rejected.

Of the 121 responses scored, 43 (35.5%) of the students have a 30% chance of developing a stress-related illness in the next year. 46 students (38%) have a 50% chance of developing a stress-related illness in the next year, and 32 students (26.5%) have an 80% chance of developing a stress-related illness in the next year.

77 (63.6%) of the scored responses are identified

as having ineffective coping skills, whereas 44 (36.4%) appeared to have effective coping skills. 12 students (10%) plan to pursue a career in law. 36 students (30%) plan to obtain CPA status or work in accounting. 73 students (60%) plan to pursue management careers. The population consisted of 64 females (53%) and 57 males (47%). 19 students (16%) had at least one child. 85 students (70%) do not know how to use stress management techniques, whereas 36 (30%) do know how to use them. 114 of the students in the population (94%) responded that they would like to learn more about stress management, and 7 (6%) responded that they would not like to learn more.

Twelve of the respondents are majoring in pre-law. Three of those have an 80% chance of developing a stress related illness in the next year. Five have a 50% chance, and, 4 have a 30% chance. Seven of the twelve possess ineffective coping skills, while 5 possess effective coping skills. There are 8 females and 4 males in this category. 8 of the respondents did not know how to use stress management techniques, and 4 of them did already know the techniques. Only one pre-law student answered "No" to the question, "Are you interested in learning how to better cope with stress?".

The rest, 92%, responded that they would like to learn more.

The 36 students who plan to pursue accounting comprised 30% of the population. Seven of the 36 have an 80% chance of developing a stress-related illness, 16 have a 50% chance, and thirteen have a 30% chance. Eleven of the students have effective coping skills, and 25, or 69% have ineffective coping skills. 12 males are accounting majors, along with 24 females. 12 of the accounting students know how to use stress management techniques, and 24 do not know the techniques. 33 of the students, or 92%, said they would like to learn how to better cope with stress, whereas 3% do not want to learn how to better cope with stress. Three accounting students are also parents, and the remaining 33 do not have children.

The population surveyed includes 73 students who plan to seek a management position after graduation. This is 60% of the population. 22 of the 73 students have an 80% chance of developing a stress-related illness in the next year, 25 students have a 50% chance, and 26 of the students have a 30% chance of developing an illness related to stress. 28 of the 73 students have effective methods of coping with stress, and 45, or 62%, use methods which are not effective for managing

stress. The management majors consist of 41 males and 31 females. 27% of these students already know how to use stress management techniques, and 53 students, or 73%, do not know the techniques. However, 70 of the management majors, or 96%, said they would like to learn how to better cope with stress. The remaining 4% responded that they do not wish to learn. 17 of the 73 students are also parents, and the remaining 56 do not have children.

The next section will discuss what these results mean for Pembroke State students now and as they enter the workforce. The law, accounting, and management professions will be analyzed to show pressures that are specific to them, pressures that Pembroke State University students will likely encounter.

V. Meaning of Data

In this section of my thesis, I will identify some sources of stress that are inherent in the professions of management, accounting, and law. I will also estimate the number of Pembroke State University Students that are likely to encounter these stressors as they enter their chosen professions. I will also describe some of the ways in which businesses are trying to deal with the stress of their employees.

It is interesting to note that for the total population, 78 students, or 64%, have at least a 50% chance of developing a stress-related illness in the next year. This is also true within each category by major. Of the 12 pre-law students surveyed, 8 of them, or 67%, have at least a 50% chance of developing a stress-related illness. 23 of the accounting majors, or 64%, have at least a 50% chance of developing a stress-related illness in the next year. 47 of the management majors, or 64%, have at least a 50% chance of developing a stress-related illness. Of the seven who responded that they were not interested in learning how to better cope with stress, only one student had at least a 50% chance of getting sick because of stress. The remainder

had only a 30% chance of developing an illness related to stress.

Pre-law students comprised 10% of the population surveyed. This is a group that will be faced with a very heavy workload and a lot of stress. Two-thirds of this group had at least a 50% chance of developing a stress-related illness in the next year. Furthermore, two-thirds of the group do not know how to manage stress effectively, and 92% would like to learn how to better cope with stress.

Young lawyers are experiencing an increasingly heavy workload because of the emphasis on profitability within the firm. The problems of profitability of the law firm are drawing increasing attention and having a dampening effect on the spirit of volunteerism. It used to be that 1400 to 1500 hours a year was a reasonable target for a young lawyer. Many firms today consider 2200 to 3000 hours a year reasonable. Assuming 48 working weeks per year, a lawyer would have to work 10 hours per day, six days a week to reach 3000 hours a year. Those are billable hours. Lunch breaks and other nonbillable time are not included. Young lawyers feel the pressure more than any other group. There is no time for family because almost every waking hour is consumed either by work itself or worrying about work.

Managing partners are very concerned with the work in progress, or WIP, and a young lawyer may not be with the firm long if he or she does not have a lot of work in progress. With all of this concern over the bottom line, there is no time for public service, charitable work, or pro bono clients, much less relaxation.

(Jennings, 8)

Students who plan to pursue a career in management comprise 60% of the population surveyed. 64% have at least a 50% chance of developing an illness related to stress in the next year. 62% of the management students do not have effective skills to cope with stress, and 96% are interested in learning how to better cope with stress.

The management field has several characteristics which may make it stressful. Many managers experience burnout. Part of the problem is that more than a million managerial and professional jobs have disappeared over the last five years. The managers who remain are working longer and harder than ever, sometimes to the point that their jobs often end up controlling them. They just have so much work to do that they can not get revved up for that next project or assignment. The problem most likely affects a company's best people. The managers who care deeply about their

jobs, put in long hours, and want to make things better are the ones most likely to wipe out. Furthermore, good managers rarely admit to the boss that they are wearing down, for fear they will no longer be wanted on the team. Burnout is a process that happens over time. It can wear down a person's hopes and ideals, and make even a star performer not care anymore. To compound the problem, top executives usually do less than they should to help a burned-out manager. Sometimes they just do not know what to do because of conflicting advice from various sources, and other times they would just rather not get involved in a problem that may be partly rooted in an employee's home life. (Dumain, 79)

Job uncertainty is the number one factor contributing to burnout. Workers terrified of losing their jobs are more likely to push themselves too far or just give up and quit trying. Managers are also more likely to burn out when they feel a sense of futility, when they do not know what their efforts are supposed to be accomplishing. Burned-out middle managers often complain that top management lacks a sharp vision of what the organization should be and the ability to draw support for that vision. (Dumain, 80)

Managers, in addition to dealing with their own stress, should know what signs of burnout to look for in

their employees. Employees who were once good at pacing themselves may begin procrastinating or, at the opposite extreme, start taking on too many assignments. The employee may start showing signs of poor organizational skills, such as losing things, being forgetful, or being inattentive to details. Signs of burnout may also show up in social interactions. Employees who are normally easy-going and friendly may become irritable and isolate themselves from their peers. If managers can learn to identify burnout symptoms, they can save their companies a lot of money and productivity by stepping in and alleviating burnout symptoms. (Watts, 12-13)

Employee stress can be successfully monitored by using a stress audit. According to Paul J. Rosch, President of the American Institute of Stress, any useful program should begin and end with a stress audit. Questionnaires are distributed to employees which ask them to list conditions they find stressful. The answers can point out areas where workers are stressed by boredom, as well as those where they are stressed by overwork, so the necessary adjustments can be made. (Farnham, 76) Most Fortune 500 companies offer employees either an employee assistance program (EAP), a wellness promotion program, or both. These

programs try to catch stress before it gets out of hand, by preparing workers for potentially traumatic organizational changes. (Farnham, 78)

Another strategy that helps reduce stress is matching employees with jobs they can do well. There is a better chance of getting top performance from employees and reducing their stress when they are given more choices over assignments. Managers who want to reduce stress should make sure that workers have the tools and training they need to do the job. They should set realistic deadlines and take care not to change them. Performing a periodic stress audit, or making stress management part of your EAP or wellness program can pay off in court. According to the Dean of the business school at the University of Houston, "Even a sloppy attempt at stress management can be a legal defense." (Farnham, 86)

Managers can also help to prevent burnout by setting realistic goals. This involves honest communication and involvement with the employee. When employees are allowed to participate in goal setting, they set higher goals and reach them more often. Performance appraisal systems are another useful tool for spelling out goals and providing feedback. Providing employees with a sense of control over their

work will also help them guard against feelings of helplessness. One way to do this is to allow flexible schedules and work styles. Stress reduction is important for preventing burnout, and it can be accomplished by providing adequate opportunities for staff members to wind down and making sure they do not have to take work home on the weekends, as well as promoting stress-management training. Burnout can sometimes be prevented just by making sure managers take their vacations each year or occasionally surprising them with a three day weekend.

The United States ranks fifth in terms of productivity per person. This is true despite the fact that it is the most technologically advanced nation in the world. Researchers believe that this may be partially explained by the increasingly stressful work environment and employees' poor ability to deal with the causes of that stress. (Nykodym, 57) In a study of 500 male executives performed by Cary L. Cooper and British physician Andrew Melhuish, the researchers identified executives who were prone to stress-related illnesses and the sources of stress for those executives. Managers under stress exhibit behavior characterized by restlessness, impatience, extreme competitiveness, and feelings of being pressure. They are often in a job

that has recently changed and that places demands on their time and relationships. Many times they work in a poor organizational climate with little if any social support from friends or co-workers, and have personal values that conflict with the company's values. The main sources of stress revealed in this research were work and family problems. The primary stressor at work was the executive's relationship with his or her boss. The second stressor was frustrated career plans, followed by time spent away from families. (Nykodym, 57)

This study also found a correlation between stress and increased abuse of alcohol and drugs. Twenty-four percent of the executives consumed one to two drinks per day, 11% consumed three to six drinks per day, and 2% consumed more than six. Thirty percent had or were taking tranquilizers, and 24% had or were taking sleeping pills. (Nykodym, 57) Pembroke State students are likely to encounter some of the same pressures mentioned. In the study of Pembroke State University students, 57% of the management majors are males.

Statistics comparing men and women in the workforce reveal that even though women comprise 51% of the U.S. population, they make up only 40% of the workforce. Women are outnumbered 600 to one in executive positions.

As businesswomen compete for and assume positions previously reserved for men, they are encountering the tensions and health problems of their male counterparts. Besides the same stressors that men deal with, career women also have the added pressure of being all things to all people, which means trying to be the perfect homemaker, wife, mother and employee. This also means dealing with the guilt when they realize they are not fulfilling these roles perfectly. (Nykodym, 57)

A study conducted by the National Heart, Lung, and Blood Institute found a correlation between the health of the working woman and the number of children she has. The study revealed that among married working, coronary heart disease rose as the number of children increased. In the study of Pembroke State University students, 73 of the 121 surveyed plan to pursue management careers. Of these, 53% are females. 19 students (16%) had at least one child. They too will be faced with multiple and conflicting roles.

Accounting majors comprised 30% of the population surveyed. 64% of these students had at least a 50% chance of developing a stress-related illness in the next year. 69% do not know how to deal effectively with stress. 92% answered "Yes" to the question, "Are you interested in learning how to better cope with stress?"

As these students enter the professional world of accounting, they will be faced with certain sources of stress that have to be dealt with. One problem is the auditor's responsibility for illegal acts. Second is the problem of the skewed year, in which several months are frantic and others are slow. The third problem to be discussed is obstacles to advancement women face as they enter a field that has been, until recent years, primarily dominated by men.

Auditors are now being pressured to assume responsibility for detecting and disclosing violations of law encountered during an audit. The Statement of Auditing Standards number 54, titled "Illegal Acts by Clients" describes the auditor's responsibilities for detecting and disclosing these violations. The auditor should be aware of those laws and regulations that could have a direct and material impact on the financial statements, and have the legal expertise to identify violations. If the auditor discovers an illegal act, he should obtain sufficient information to evaluate its impact on the financial statements, and must evaluate management's assessment of the act's financial statement impact. The auditor should make sure that an entity's audit committee or board of directors knows about the illegal act. If the client refuses to accept a report

modified because of an illegal act, the auditor should withdraw from the audit engagement. (Neebes, 84)

The accounting profession is returning to the way it functioned before World War II rather than hurtling towards an uncertain future. One important difference in the way we practice now compared with practice in the 1950's through 1980 is a more frantic busy season and even slower off-season. This is because of the Tax Reform Act of 1986. Before this act, many firms had tried to level their work years. Now the staff in many firms produce chargeable hours only five months of the year. Accounting professionals have attempted to combat this skewed year problem with the help of accounting specialists, who can be found in all areas of practice and often work less than full time or only in busy seasons. (Istvan, 42-44)

An increasing number of women have entered the field of accounting. In 1977, 28% of all graduating accounting students were female, while today about 50% of all new accountants are women. (Alter, 50) Two-thirds of the accounting majors surveyed at Pembroke State University are women. The increasing number of women in the accounting field can pose a problem for CPA firms in trying to retain them, and for the women

themselves in trying to overcome obstacles that seem to be unique to women in this field.

CPA firms that do not respond to the needs of this increasing number of women CPA's may find themselves at a competitive disadvantage in the future. A 1990 survey conducted by the American Institute of CPA's management of an accounting practice committee found that 46% of firms in 1990 had an increase in the proportion of female professionals over five years earlier. (Istvan, 50) After joining the firm, women may face obstacles to advancement, which results in a higher turnover as women look elsewhere for better opportunities or more flexible schedules.

Few firms have formal programs for retaining female professionals. A great majority of managing partners surveyed revealed that their firms had made no formal efforts to deal with management issues dealing with female staff, such as alternative career paths and childcare. The lack of such programs clearly affects female staff members. When staff members were asked if they thought they could become a partner and be a parent, 81% of the men said yes, compared to 41% of women who believed they could do both. (Alter, 51) Of the two-thirds of accounting students surveyed at

Pembroke State University who were also women, 8% are also mothers.

The firms that have created programs for women recognize this as a sound business decision. They cite low turnover, high morale, and client satisfaction as some of the benefits achieved. The first step in such a program is a stated firm commitment to supporting employees and helping them find solutions to their problems. Some of the programs firms have established include flexible schedules. This means that almost any schedule can be accommodated if it fits the needs of the individual and the firm. However, the client must be served, even if it means that staff members make themselves available at home or in an emergency, and during busy times such as tax season, everyone pitches in. One firm described how it maintains a pool of computers so staff members can work at home. Another program designed to retain female CPAs is offering childcare options, ranging from running on- or near-site facilities to offering childcare referral services. Some firms offer guidelines on how to advance within a firm and what is required to become a partner, by helping new staff members define their career paths, review their goals, and monitor their progress. Some of the programs offered by these firms require planning

and time, and often nonchargeable hours and out-of-pocket expenses. They feel, however, that if they can retain employees longer, then the time and money was well spent. (Alter, 52-53).

Law, management, and accounting are all inherently stressful professions. They each have certain characteristics that make them stressful. These are major fields chosen by Pembroke State University students. They will also encounter the stressors currently being experienced by professionals.

VI. Conclusions and Recommendations

I expected, and did find that many business and pre-law students are at risk of developing an illness related to stress. I also found that their coping skills are counterproductive and inadequate. The survey and its results described in this thesis are evidence of these facts. Of the 121 students surveyed, 64% have AT LEAST a 50% chance of developing a stress-related illness in the next year. 63.6% of the students are identified as having ineffective coping skills. An overwhelming 94% expressed an interest in learning how to better cope with stress. These statistics represent serious consequences for pre-professional students at Pembroke State University both now and when they enter the work force in their chosen careers.

I feel that Pembroke State can help break this cycle of stress and illness by showing students how to manage stress. This could best be accomplished during one required course, University Orientation (ORI 100). This is a course required of all incoming freshmen during their first fifteen credit hours of course work at the University. Its purpose is to prepare new students for the unique challenges of college life. A

few of the topics that are currently addressed during this course are understanding basic studies, using the library, and protecting one's health. (Boyles, vi)

Stress is not always bad. In fact, stress can actually improve performance whether in school, on the job, or in sports. When stress is not dealt with effectively however, it becomes a problem. It weakens your immune system and makes it harder to fight off some illnesses, while it is the direct cause of others. Clearly, it is necessary to cope with stress in order to maintain health.

There is a wide body of knowledge available that addresses the issue of stress management. Many techniques are known that have been tried and proven to reduce stress. A few examples of the techniques that work are deep breathing, meditative relaxation, biofeedback, and autogenics. A healthy outlook on life, and a healthy lifestyle which includes proper diet and exercise are two more ways to reduce your overall stress.

Students are at risk of stress-related illness, even though there are volumes of information available. This means that the students need to be made aware of their own stress. In addition, they need to be taught how to cope with it effectively. The students I have

surveyed have shown an interest in learning these skills. They will soon be pursuing careers that have stress within them. Many will be getting married, having children, and moving away from home; in other words, encountering more stress. This will place them at an even greater risk of contracting an illness, which means more costly doctors visits.

My purpose in preparing this thesis is not to point out weaknesses in the Orientation program. I feel the program is an excellent one, and is very useful to new students. I do feel, however, that it could be enhanced by also addressing the issue of stress. Students need to be taught to recognize the signs that signal the onset of stress. They need to be shown the proper techniques that will effectively reduce stress. The demonstration of these techniques during class would show students that they are simple, easy to learn, and that they don't require a lot of time to perform. The techniques work, and I feel they are necessary to improve our students' health and life. The skills, once learned, can be taken with us into our professional lives to make us more productive, with less time lost due to illness.

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Appendix 1

TITLE:

EARLY INTERVENTION: A Study Of Stress Among Undergraduate Students At PSU And A Proposal For Stress Management In The Future

PRINCIPAL INVESTIGATOR:

Pamela D. Williams (student), Supervised by Dr. Robert Brown (CSP 450 Thesis Project), and Dr. Carolyn Roberts (Faculty Advisor).

OVERVIEW:

The research I intend to do is for partial fulfillment of the Chancellor's Scholar Program at Pembroke State University. My goal is to find out if business and pre-law students are experiencing stress, how much, its causes, and the coping skills (both good and bad) that these students possess. The end result is to determine whether these students could have benefited from learning stress management techniques during Freshman Orientation.

METHOD:

In order to find out if business and pre-law students are experiencing stress, how much, its causes, and the coping styles of these students, I have selected two surveys found in the book LIFETIME FITNESS, by Larry H. Brown. The Life Stress Scale will show whether the students in my sample are experiencing stress, how much, and its causes. Part two of the survey will measure how well the students cope with stress and will identify the specific strategies these students use.

I have already obtained permission from the following instructors to use these surveys in their classes: Dr. James Bardsley, BUS 312, Sections 01 and 02; Mrs. Sharon Bell, BUS 227, Sections 01 and 02, and BUS 228, Sections 01 and 02; Dr. Carolyn Roberts, BUS 303; Mr. Terry Hutchins, BUS 315; Dr. Robert Schneider, PLS 310, Section 01. This sample consists of approximately 300 students. However, students who may have completed a survey in one class will be asked not to complete a second one in another class.

A questionnaire that I have developed will accompany the two surveys. This questionnaire asks for personal data about each subject which will give me additional information and make my results more meaningful.

ETHICAL CONSIDERATIONS, REPORTING OF RESULTS, AND RETENTION OF RECORDS:

Returning the completed survey to the instructors will grant

Appendix 1

me permission to use the data collected. A cover sheet will accompany each survey which promises anonymity to each subject involved. I foresee no risk of physical and/or psychological harm to any person I will involve in obtaining this information. There is no opportunity for course credit for the participants, and any participant may withdraw from participation at any time, without prejudice. The information that I acquire will be used to determine the relationship between business and pre-law students' degree of stress and their coping skills. The information may also suggest that these and other students could benefit from the demonstration of stress-management techniques early in their college careers. The analysis of the data will be incorporated into my final thesis. This information will also be used during my required oral presentation of my thesis. A copy of my final research paper will be bound and kept as a reference in the Mary Livermore Library at Pembroke State University. The raw data will be stored in my personal files for a maximum of one year. After this period, all raw data will be shredded.

MEMORANDUM

DEPARTMENT OF EDUCATION
PEMBROKE, N.C. 28372
(919)521-4214

TO: Ms. Pamela D. Williams
Chancellor's Scholar Student

FROM: Donald R. Little, Chairman *DL*
Institutional Review Board for Research Involving Human Subjects

DATE: February 5, 1992

RE: Research Proposal

I am happy to report the action of the Review Board regarding your research proposal entitled "Early Intervention: A Study of Stress Among Undergraduate Students at PSU and a Proposal for Stress Management in the Future". The proposal was approved unanimously at the February 5, 1992 meeting subject to the following stipulation: That explicit provisions be made for obtaining informed consent from each student who participates in the study. This may be obtained orally, but written informed consent is preferred. Students must be clearly informed that they may choose not to participate in the study without prejudice in any form.

cc: ✓ Dr. Robert Brown, Department of History
Ms. Carolyn Roberts, Department of Business Administration and Economics

Appendix 3

EARLY INTERVENTION: A Study Of Stress Among Undergraduate Students At FSU And A Proposal For Stress Management In The Future

Purpose: This survey will attempt to measure the degree of stress you are currently experiencing and to identify its specific causes. It also aims to determine how well you cope with stress.

Instructions: This survey is completely anonymous. By returning it, completed, you are giving me your consent to analyze your answers and incorporate the data into my research. If you do not wish to participate in this study, simply return the survey unanswered. You will in no way be penalized if you do not wish to participate. This survey is completely unrelated to your course and cannot be used for course credit.

Please respond to each item as accurately as possible. Part one predicts your chances of developing a stress-related illness. If any of the events listed in part one have happened to you in the last 12 months, check the "Happened" column.

Part two determines how well you cope with stress. Ask yourself: "How often do I use this as a means to cope with stress?" Then circle the letter that most appropriately applies to you:

N: Never; R: Rarely; S: Sometimes;
O: Often; A: Always

Before completing this survey, please answer the following questions about yourself by filling in the blank spaces or making a mark by the appropriate answer.

Appendix 3: Student Information

Classification: Soph.____; Jr.____; Sr.____; Other____

Age_____

Sex: Male____; Female____

Major_____

Career Goal:_____

Are You Married? Yes____; No____

Number of Children:_____

Do you live: (check one) On campus?____; At home?____
In off-campus housing?_____Are you currently employed? Yes____; No____
If Yes, how many hours? Less than 10____; 10-19____;
Over 19 _____Are you familiar with stress management techniques? Yes____
No____Do you know how to use stress management techniques? Yes____
No____

Are you currently using them? Yes____; No____

Are you interested in learning how to better cope with
stress? Yes____; No____

Appendix 3: Student Information

Classification: Soph.____; Jr.____; Sr.____; Other____

Age_____

Sex: Male____; Female____

Major_____

Career Goal:_____

Are You Married? Yes____; No____

Number of Children:_____

Do you live: (check one) On campus?____; At home?____
In off-campus housing?_____Are you currently employed? Yes____; No____
If Yes, how many hours? Less than 10____; 10-19____;
Over 19_____Are you familiar with stress management techniques? Yes____
No____Do you know how to use stress management techniques? Yes____
No____

Are you currently using them? Yes____; No____

Are you interested in learning how to better cope with
stress? Yes____; No____

Appendix 3: Life Stress Scale

Code _____

Item No.	Happened (check)	Life Event
1	_____	Death of spouse
2	_____	Divorce
3	_____	Marital separation
4	_____	Jail term
5	_____	Death of close family member
6	_____	Personal Injury or illness
7	_____	Marriage
8	_____	Fired at work
9	_____	Marital reconciliation
10	_____	Retirement
11	_____	Change in health of family member
12	_____	Pregnancy
13	_____	Sex difficulties
14	_____	Gain of new family member
15	_____	Business readjustment
16	_____	Change in financial state
17	_____	Death of close friend
18	_____	Change to different line of work
19	_____	Change in # of arguments w/spouse
20	_____	Mortgage over \$10,000
21	_____	Foreclosure of mortgage or loan
22	_____	Change in responsibilities at work
23	_____	Son or daughter leaving home
24	_____	Trouble with in-laws
25	_____	Outstanding personal achievement
26	_____	Spouse begin or stop work
27	_____	Begin or end school
28	_____	Change in living conditions
29	_____	Revision of personal habits
30	_____	Trouble with boss
31	_____	Change in work hours or conditions
32	_____	Change in residence
33	_____	Change in schools
34	_____	Change in recreation
35	_____	Change in church activities
36	_____	Change in social activities
37	_____	Mortgage or loan less than \$10,000
38	_____	Change in sleeping habits
39	_____	Change in # of family gatherings
40	_____	Change in eating habits
41	_____	Vacation
42	_____	Christmas
43	_____	Minor violations of the law

Appendix 3: Coping Mechanisms Survey

Code _____

- | | | | | | |
|---|---|---|---|---|---|
| 1. Take tranquilizers, sleeping pills, or other medications. | N | R | S | O | A |
| 2. Try to relax by deep breathing, taking a short break, or sitting in a quiet place. | N | R | S | O | A |
| 3. Eat compulsively or drink alcohol or caffeine. | N | R | S | O | A |
| 4. Look more lightly at the situation. | N | R | S | O | A |
| 5. Light up a cigarette. | N | R | S | O | A |
| 6. Try to use time well. Prioritize my needs. | N | R | S | O | A |
| 7. Go out and buy something. Spend money inappropriately. | N | R | S | O | A |
| 8. Call up a good friend and share my feelings or concerns. | N | R | S | O | A |
| 9. Click on the television and try to divert my attention. | N | R | S | O | A |
| 10. Take a walk or get some other exercise. | N | R | S | O | A |
| 11. Not bother anyone else and dwell on the problem until I can solve it. | N | R | S | O | A |
| 12. Begin a new project or work on my hobby. | N | R | S | O | A |
| 13. Throw something or snap back at someone. | N | R | S | O | A |
| 14. Seek spiritual counseling or consult with a therapist. | N | R | S | O | A |

Appendix 4: Student Information Totals

Classification: Soph. 29; Jr. 43; Sr. 43; Other 6

Age _____

Sex: Male 57; Female 64

Major _____

Career Goal: ~~Law-12~~ ~~Accounting-36~~ Management-73

Are You Married? Yes 31; No 90

Number of Children: _____

Do you live: (check one) On campus? 31; At home? 81
In off-campus housing? 9

Are you currently employed? Yes 83; No 38
If Yes, how many hours? Less than 10 7; 10-19 14;
Over 19 2

Are you familiar with stress management techniques? Yes 35
No 86

Do you know how to use stress management techniques? Yes 36
No 85

Are you currently using them? Yes 19; No 102

Are you interested in learning how to better cope with stress? Yes 114; No 7

Appendix 5 Mean Values for the Life Stress Scale

<i>Life Event</i>	<i>Mean Value</i>	<i>Life Event</i>	<i>Mean Value</i>
1. Death of a spouse	100	25. Outstanding personal achievement	28
2. Divorce	73	26. Wife beginning or stopping work	26
3. Marital separation	65	27. Beginning or ending school	26
4. Jail term	63	28. Change in living conditions	25
5. Death of close family member	63	29. Revision of personal habits	24
6. Personal injury or illness	53	30. Trouble with boss	23
7. Marriage	50	31. Change in work hours or conditions	20
8. Fired at work	47	32. Change in residence	20
9. Marital reconciliation	45	33. Change in schools	20
10. Retirement	45	34. Change in recreation	19
11. Change in health of family member	44	35. Change in church activities	19
12. Pregnancy	40	36. Change in social activities	19
13. Sex difficulties	39	37. Mortgage or loan less than \$10,000	17
14. A new member in the family	39	38. Change in sleeping habits	16
15. Business readjustment	39	39. Change in number of family gatherings	15
16. Change in financial state	38	40. Change in eating habits	15
17. Death of a close friend	37	41. Vacation	13
18. Change to different line of work	36	42. Christmas	12
19. Change in number of arguments with spouse	35	43. Minor violations of the law	11
20. Mortgage of \$40,000	31		
21. Foreclosure of mortgage or loan	30		
22. Change in responsibilities at work	29		
23. Son or daughter leaving home	29		
24. Trouble with in-laws	29		