

PSYCHOLOGICAL AND ACADEMIC STRESS OF
WOMEN GRADUATE STUDENTS

By

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CHAPTER I

INTRODUCTION

The target population for American institutions of higher education generally has been the 18- to 22-year old age group. Enrollment patterns began to change, however, as a result of an influx of women over the age 25 years. Institutions of higher education were faced with a crisis caused by the decrease in the number of traditional students applying to colleges and universities. Since attrition rates were reaching alarming proportions, the stage was set for the reordering of academe and the focus became the returning student.

According to Weiss (1977), the number of women between the ages of 25 and 34 attending American colleges and universities rose 367 percent between 1960 and 1972, from 171,000 in 1960 to 627,000 in 1972. In 1972, the total number of women 25 years and older enrolled in institutions of higher education was 1,102,000. Of these women, 450,000 or 41 percent were women over 35 years of age. The Carnegie Council (1980), reported that within the three-year period of 1975 to 1978, the number of women between the ages of 24 to 34 returning to higher education rose 187 percent. The data show that more women are now interested in beginning or resuming their education instead of pursuing the traditional roles as homemakers.

In colonial United States, higher education was not available to women until the 1800's, and Park (1978) explained that this change came

about because of political pressures, and the demand for an educated citizenry. This led to the educating of women as teachers, and several colleges and universities became co-educational during the nineteenth century. Women, however, were only offered home economics and education as their majors, while men studied engineering and agriculture (Tittle & Denker, 1980).

Traditionally, and until the early twentieth century, the majority of United States women appeared to be satisfied with maintaining their role as that of wife, mother and housewife. These were the jobs that did not require higher education, yet some of these women were not comfortable with their roles and became increasingly frustrated, confused, and bored. Women found it difficult to reach a satisfactory equilibrium and as a result they became the victims of psychological stress (Morse & Furst, 1982).

Over time, along with the culmination of several societal changes, some women became dissatisfied with their ascribed roles. Women found that they could raise a family under modified conditions and still entertain the prospect of a meaningful career. With technological advances in lifestyle and the ensuing break through in medicine, some women ventured out of the house into the role of the working woman, while others returned to college or university.

Several reasons have been given for women returning to higher education. One of the most significant reasons has been the advent of the women's movement which urged women to give up the traditional roles. Another reason is affirmative action in business and industry. Scott (1980) reports that the concept of lifelong learning has taken on a new meaning for society. The returning woman (an older woman) was now being

offered a legitimate place in academe. Many of these women are more mature and hold at least one degree. These women appear to make up a significant proportion of returning students to higher education, but their return is fraught with many different problems.

Background of the Study

The late 1970's and early 1980's became a time of financial stress for the average American family. The traditional concept of the husband working and the wife staying at home has been abandoned by many families. Many wives have had to do some kind of work outside of the home to supplement the family income, while others worked to maintain a standard of living or to provide college funds for children (Benjamin, 1979). Many wives also left the confines of their homes and were given jobs for which they were not psychologically ready to handle. Some of these women did not enjoy these positions and as a result experienced anger, frustration, and finally stress (Morse & Furst, 1982).

Some reasons given for the problems faced by the women were that women were working too hard, some were putting in too many hours, and some were incompetent at their jobs (Morse & Furst, 1982). Two alternatives became available to these women: 1) they would have to work at jobs that were of low status and pay, and 2) they would have to go back to school and prepare themselves for a special occupation or profession (Morse & Furst, 1982). Many women opted for the latter, and began returning to college in large numbers to prepare themselves for suitable careers. The 1980 United States Census Bureau reported that for the first time since World War II the number of women attending college surpassed that of men, but only 16,000 or 9.6 percent of the

166,000 students in graduate or professional schools were women. The percentage of graduate returning women reported in the literature is unclear. Much of the literature on returning students does not reflect a clear distinction between the sexes, or student classification but what appears apparent are the pressures these returning women have to face on their return to a college or university campus.

Graduate students experience life changes which appear to lead to academic and eventually psychological stress. Factors identified as stressors include dramatic lifestyle change from being a homemaker to being a student, grades, course overload, making friends, shyness, jealousy, and marital breakups (Daniels, 1982; Greenberg, 1983; Liao, 1977). Returning women experience the same stressors as the traditional students, but returning-women graduate students experience other stressors that are unique (Gilbert, 1982; Greenberg, 1983; Holahan, 1979; Roehl, 1981). Stressors which returning women face or encounter come from various sources. These sources include the responsibilities gleaned from familial obligations, pressures from their jobs or college, from guilt, anxiety, self-blame, frustration, the sense of abandonment of their traditional role, the need to feel effective in their interpersonal relationships, loneliness in their age group, a sense of being older and more experienced than other students, and the feeling that sometimes they are more experienced than their professors (Benjamin, 1979). The very idea of returning to college can be a stressful situation for these women.

According to McClintock, Stevens, & Taylor (1980), women have repeatedly expressed concern about the emotional stress for women in graduate school. This includes the difficulties in the

professionalization process brought about by subtle discrimination and the strain of trying to maintain dignity while balancing family life and graduate school. Another major problem encountered by women graduate students is funding for school, caused by high college cost and difficulties with earning tuition. Attending college then, also becomes dependent upon one's socioeconomic status. Sexton (1976), contends that in the lowest socioeconomic groups, 24 percent fewer women enter college than do men, while at the graduate level as a result of a skewed distribution of funds, 37 percent of women students and 49 percent of men have to receive aid of some kind in order to remain in school.

Literature abounds with problems of stress, and various aspects of the stress concept have been widely researched in the psychological field. There is, on the other hand, a paucity of quantitative and qualitative research in the area of academic stress and its effect on returning-women graduate students. For the older woman, the problems of reeducation and the readjustment can be overwhelming (Kolotkin, 1982). Returning women, therefore, express the need for added support from their spouses, immediate family, friends, and perhaps children, for them to cope with some of the problems of everyday living coupled with that of school (Holahan, 1979). The counselor may also become an important factor in the academic and psychological development of returning-women graduate students (Manis & Mochizuki, 1972), since many of these women will need assistance and guidance in reexamining their roles and lifestyles against conflicting expectations (McGraw, 1982).

Significance of the Study

Returning-women graduate students have not been researched in relation to psychological or academic stress. This investigation was therefore timely, since there is a paucity of studies done on women in graduate school. Graduate school is characterized by a cross section of different types of students. The graduate school environment is also an anxiety provoking experience, soliciting high standards, and quality performance. It is about this time (when the student enters graduate college) that life changes for the individual; there is marriage and then children, and for many students in graduate school the changes give rise to anxiety and perhaps frustration.

The above are typical psychological stressors for college students, but if these students cannot maintain psychological well-being, perhaps they will begin to experience problems with grades or high levels of academic stress. On the other hand, students might first begin to have problems with grades which could lead to psychological stress. The resulting relationships of life-stress and academic performance and the effects of life-stress on grades are not always clear, but there would appear to be some interrelationships between psychological stress and academic stress and their effects on college students. Two questions become significant in this research. Are graduate women experiencing psychological stress as well as academic stress? Is there a difference in the relationship between psychological stress and academic stress when age and financial status are moderated?

This investigation was designed to provide needed information on the relationship between psychological stress and academic stress as experienced by women graduate students. The results of the study should

benefit institutions of higher education in their development of programs for these special students. This study could also provide an avenue for women to better understand themselves and their role in the academic environment.

Statement of the Problem

Graduate students on their return to college are exposed to several stressors, whether from everyday occurrences or from their academic environment. This is reflected in their behavior towards themselves and significant others. This study was designed to answer the following question. To what extent is there a difference in the relationship between psychological stress and academic stress of women graduate students when compared by age, financial status, and time spent away from college?

Hypotheses

The hypotheses formulated are as follows:

1. There is a significant difference in the relationship between psychological stress and academic stress when compared by age.
2. There is a significant difference in the relationship between psychological stress and academic stress when compared by financial status.
3. There is a significant difference in the relationship between psychological stress and academic stress when compared by time spent away from college.

Limitations

The sample of women selected for this investigation is representative of graduate women from a specific educational, social, and geographic location. Since the sample was drawn from a university setting in a small urban area of a Southwestern state, generalizations to other females or males may be restricted.

The means of gathering data from the participants was done through a mailing process. Although random sampling was done, the data included only those who returned the battery of measurements rather than all participants selected for the investigation.

The model used in the study was limited to the number of mediating variables included (age, financial status, and time spent away from college).

Definitions

The following terms are defined as they were used in the study:

Academic Stress - is that set of variables (e.g., grades, tests, term papers, homework, assignments, and seminars) associated with the higher educational environment. These variables place a demand upon the individual which causes her to have to readjust. Throughout this study, academic stress is referred to as the score obtained on the subscales of the 18 item Academic Stress Questionnaire designed by this researcher.

Continuous-Women Graduate Students - are those who have had a break of less than three years between their bachelor's degree and graduate studies. They are presently pursuing a graduate degree and are 21 to 36 years of age.

Psychological Stress - has been defined as intense emotions such as anxiety, fear, frustration, guilt, worry, anger, hate, jealousy, self-pity, or inferiority feelings. For the purpose of this study, psychological stress will be defined as the unpleasant and pleasant life events score, and the unpleasant and pleasant effect score obtained on the Life Experiences Survey.

Returning-Women Students - are described by Roehl (1981) as female students, 25 years or older who had not been enrolled in an institution of higher education for the previous two years. For the purpose of this study, returning-women graduate students will be defined in terms of her advanced age (36-60 years), as having at least a three year break in their educational career but are presently enrolled in a graduate program.

Stressor - as defined by Girdano & Everly (1979), is an event or condition that may be purely physical or psychological including anticipation and imagination and triggers a stress reaction. For the purpose of this study, a stressor will be grades, tests, term papers, fear, anxiety, guilt, frustration, anger, or quality of student services.

Organization of the Study

Chapter I includes an introduction to the study, background of the study, significance of the study, a statement of the problem, hypotheses, limitations of the investigation and a definition of terms. Chapter II is an integrated review of relevant stress literature as it relates to psychological stress and academic stress on returning-women graduate students and concludes with a summary. Chapter III describes the instruments, participants, data collection procedure, statistical

procedure, and summary. Chapter IV contains the findings of the study and discussion of results. Chapter V presents the summary, conclusions, and recommendations for further research.

CHAPTER II

REVIEW OF LITERATURE

This chapter reviews literature that explores returning-women graduate students, and psychological and academic stress. The discussion is divided into the following major sections. The first section includes a review of returning-women graduate students. The second section focuses on the problems and barriers returning women face upon their return to higher education. The third section is a discussion on psychological stress and returning-women graduate students. This section is followed by academic stress, and the manifestation of academic stress. The last section examines returning-women graduate students' ability to cope with psychological and academic stress.

Returning-Women Graduate Students

Following a decline in women's enrollment in higher education in the 1940's, the enrollment trend began to rise again in the 1950's (Creager, 1971). Accompanying this rise was a concern over the future of education for women. According to Sexton (1976), more than three million American women now attend different colleges and universities across the nation, but as previously mentioned, in 1969 only about 16,000 of the 166,000 students in graduate and professional schools were women. How many of these women are returning-graduate students is unclear. Cross (1974), in looking at studies done at the University of

Chicago, indicated that there was no data to show how many women return later or continue their study on different campuses after dropping out of graduate school.

Several reasons have been given for not reporting the number of women returning to graduate school. For example, admission practices in graduate departments and professional schools are shrouded in mystery more than are the admission practices of undergraduate schools (Sexton, 1976). Obscure also are the specific requirements for graduations, including in the case of the Ph.D. the unique requirements of oral examination and dissertations. Howard (1978), in a survey of 588 higher education institutions, found that 39 percent were not able to give statistics on the number of mature women students (over 25 years of age) enrolled full-time or part-time. Cross (1974), in her study of graduate schools, concluded that many graduate departments do not accept candidates over 35 years old, and others discouraged older applicants. Cross further stated that the prejudices in this instance appear to be against age rather than sex, but on the other hand, women are more educationally disadvantaged by such attitudes because of their life patterns.

Description of the Returning- Women Graduate Students

There are many studies which describe the characteristics of the returning-woman student but most comprehensive is a review of literature done by Scott (1980) covering a 13-year span (1966-1979). The majority of returning-women students whether they are graduates or undergraduates are married, employed, have children, and have husbands who are in top

level jobs. Rassiga (1980) in her research acknowledged that there are considerable individual differences among these women and divided them into subgroups of displaced homemakers, single mothers, and women over 60 years of age.

Riddle (1980) identified three general groups of returning students. Those who went to college directly from high school but did not complete a degree. Those who started a career in or out of the home, became dissatisfied or experienced a life transition (divorce or loss of a job) and is using a return to college to deal with this crisis or dissatisfaction. The third group are those who have completed a career or whose children have left home and they are seeking stimulation. Basically, these women are returning to satisfy their diverse needs. Shishkoff's (1973) sample of women were also married, mothers of teenage children, and they had some college training. Steele (1974) and Geisler & Thrush (1975) found that the women studied were also married, had children and were away from higher education for a long recess.

Obtaining a precise definition for the returning-woman graduate student has been a tedious task, since previous researchers refer to all returning students using the same phrases regardless of whether they are graduate or undergraduate students. For the purpose of this study, the returning-woman graduate is defined in terms of her age, 21 to 60 years old, and she is returning to college after having left for a period of time. The term returning, here, refers to entering a graduate degree program, as opposed to non-credit courses.

Reasons for Returning to College

Scott (1980) in her study of returning women adduced that one reason for returning to college is the woman's need to use her intellect and skills and to seek greater realization of her potentials. Some women feel the need for status as college graduates, not out of the demands of society but out of pressures from family and friends.

In his study of returning women, Letchworth (1970) found that women's motivation to return to college is rooted in an identity-integrity crisis. Identity here, is referring to the time when the woman questions herself about her abilities and limitations, her cultural values and attitudes, and finds ways and means of attaining a suitable occupational, or social role. Woman's integrity crisis is concerned with the fundamental existential question of the meaning of life. It is an active participation in trying to understand the world from a unique perspective.

Wells' (1974) research explains that there have been changes in women's pattern of living due to their lengthened lifespan. Scott (1980) substantiates Wells' findings by showing that a woman's lifespan has increased by 26 years. Churgin (1978) further claims that with changing lifestyle there has to be a different role structure for women. Women can no longer rely on the old idea of companionship and security for her familial involvement or they run the risk of becoming financially insolvent and emotionally destitute.

In a survey of the directors of several continuing educational programs, Watkins (1974) noted that women were pursuing degrees as opposed to enrolling in enrichment courses. Scott (1980) lends support to this finding when she attests that with divorce at epidemic

proportions, and with more women becoming the major breadwinner, and decision-maker for the family, women of 30 or 40 years old had to return to college. They did this to develop skills, and assertive behavior techniques which would lead to increased self-confidence, and better paying jobs.

Finally, Markus (1973) reports that in a study of returning women, 58 percent stated they were interested in finding stimulation, increasing their skills as a wife and mother, and enhancing or increasing their own interests and pleasure. A total of 29 percent of the women stated that finding an interesting and satisfying job was the most important goal for returning to college, while 13 percent said that both goals were of equal importance to them.

Women's Motive to Achieve

One of the issues that often arises in the study of women is how difficult it is to achieve at the higher educational level. To better understand the returning woman's academic dilemma one has to focus on women and their motivation to achieve.

McClelland (1953) provides evidence to show that achievement is an important psychological variable behind social and economic change. McClelland contends that high achievement motivation is at least partially responsible for a high level of economic activity within a society. Absent from McClelland's research, however, is women's need to achieve.

Achievement motivation in women was not researched until recently. What researchers attempted to do was to force-fit females into already existing theories rather than evolving new theories growing out of the

study of female development (Rassiga, 1980). While some results indicated that females were not motivated to achieve, other research showed that women were achievers, but their pattern of achievement was different from that of men. Cross (1974) reports from her study that in high school, girls achieve a higher grade point average than boys, yet by the time of college graduation, women's performance generally deteriorates to the level of men. Feldman (1974) also noted that women find it difficult to believe that they can succeed as students. Churgin (1978) concludes that an adequate self-image is necessary for continued good performance in women.

Women are and can be high achievers. Rassiga (1980) in her research, noted that women, as well as men, express their achievement orientation through different sources, as seem fit by society. Sexton (1976) found that the socialization of women often leads them to satisfy needs for achievement and recognition vicariously. They satisfy their achievement needs through their spouses and offspring (McGraw, 1982). Women tend to forego achievements for themselves in order to serve others and help them to achieve. Women's gratification, therefore, comes through association with recognized status.

Between 5 and 18 years of age, there is a slightly larger percentage of the population of females in school than males of comparable age (Hottel, 1955). Generally speaking, women in America have about 1.5 years more education than men, although at the college level men noticeably outnumber women. One possible reason for fewer women being in school is that society expects men to be the leaders in academic and social life (Deckard, 1975). Another possible reason according to Horner's (1974) research on women, is that women's motives to avoid

success, become a psychological barrier to success in women. Women feel that success, especially in competitive achievement situations will be followed by negative consequences (Horner, 1974). This is manifested through social rejection, feelings of being unfeminine, or being inadequate as a woman.

From grade school through college it is shown that women receive markedly better grades than men (Cross, 1974). A national sample of enrolled graduate students showed that 51 percent of the women and 40 percent of the men reported undergraduate grade-point average (GPA) of B-plus or better (Creager, 1971); yet women show less academic self-confidence than men. Heiss (1970) demonstrated in her research that the fear of failure because of low self-esteem may result in a half-hearted academic effort, thus ensuing academic difficulties. Sanford (1961) traced the development of achievement anxiety in college women and found that after four years of college, women showed a higher incidence of anxiety and psychological disturbance than incoming undergraduate women.

Kormarovsky (1973) found in her study on female role that women are indoctrinated to succeed but with maturity they abruptly have to change in favor of marriage. If they go on to college contradictory values begin to emerge. In her study of college women, 40 percent reported that they concealed academic honors, and pretended ignorance.

In 1952-1953, it was found that women received 34 percent of the bachelor's and first professional degrees and 33 percent of the master's and second professional degrees, but only nine percent of the doctorates (Hottel, 1955). While women received degrees in various fields of study, there is less diversion in specialization. The majority of women choose

subjects which provide a general education that equip them as much for family and community life as for paid work. Some women believe that they lack suitable knowledge of how to function effectively in a community, and that neither adult education programs nor vocational counseling facilities are adequate for meeting the needs of older women (Hottel, 1955). Horner's (1969) thesis indicates that a woman is conditioned not to succeed and, therefore, the more she does succeed, the more she will feel apprehensive over her success. To a woman then, success brings tension; to a man success yields societal rewards. Times have changed, however, and many women have abandoned their old habits of achieving through significant others and are achieving through society's accepted channels, themselves.

Problems and Barriers to Returning-Women Students and the Institution's Response

Many returning women state that there are several problems for them when they plan to return to the academic community. One problem is readjusting to the educational environment. Readjustment for these women depends to a large extent on their age. These are the women Riddle (1980) described in her study as using a return to college to deal with different crises or dissatisfactions in their lives, e.g., divorce, losing a job, or physical disability. Some other problems felt by returning women are associated with the roles they play and the demands these roles make upon them, their time and energy. Returning-women graduate students have several roles which make high demands upon much of their time. They are mother, wife, housewife, career person, and also student. Scott (1980) in her investigation of returning-women

students at Colorado Women's College, found that 65 percent were married, 60 percent had children, and 48 percent were employed.

Not only must returning women meet the demands of their several roles, but they also have to readjust their lives, in addition to that of persuading their family and close associates to change their expectations of them. For returning women, coming back to college is not simply a matter of psychological or academic stress, or the conflicts generated by the multiple roles they play, but it is a matter of reorienting their lives, significant others' life, and renegotiating new role understanding in preparation for their new self. It appears that regardless of these women's age or their roles, their return pose many problems. Benjamin (1979) and Tittle & Denker (1980) divided these problems into institutional, situational and personal barriers.

Institutional Barriers

Benjamin (1979) reported that several institutional barriers which confront many returning women include admission practices and screening procedures, discrimination against older women, limitations on financial aid, plus inadequate student services. Tittle & Denker (1980) added to the list faculty and staff attitudes.

Admission practices such as those requiring outdated transcripts, letters of recommendations, and the skills entrance examinations can become problem areas for returning women (Scott, 1980). Tittle & Denker (1980) also found that admission standards were higher for women while sex discrimination was subtle but evident in the case of the returning woman. Yohalem (1980) found in an investigation that at the professional and graduate levels, it is less difficult than formerly for

older students to obtain admission to the college of their choice. Tittle & Denker (1980) support the idea that the more prestigious and selective institutions will continue to retain their earlier attitudes. This stems from the belief that these women will again drop out of higher education or fail to use their education.

Student services means adequate services which include child-care, since the majority of the women returning to higher education are mothers. Scott (1980) found that college sponsored or supported day-care facilities are limited or nonexistent on many campuses. Child-care facilities have been cited as the most critical problem for the returning woman. In cases where these facilities are available returning women complain that they often end at inconvenient times.

Tittle & Denker (1980) suggest faculty and staff attitudes towards returning women is based on stereotyping. There are lowered expectations for women in terms of career expectations also. Mature women sometimes become sex objects for men professors. Additionally, for the returning woman, there is a lack or absence of female role models on campus.

Situational Barriers

Benjamin (1979) found another group of problems faced by the returning-woman student and classified them as situational barriers. Tittle & Denker (1980) refer to these as situational or social barriers since they arise from ethnic group differences. Returning to higher education means changes in the life situation for these students. They move from a stable situation to an unfamiliar college or university system. Returning women must manage their time so that they do not

neglect their family or their studies. Although they might have been a neat housewife, they might now have an untidy home, and prepare simple meals. Gilbert (1982) found that the graduate school experience produces familial stress and is potentially destructive for family life, especially if a spouse is not flexible. Other situational barriers for returning-women students are role strains (Rubin, 1976), childcare, inadequate preparation, financial needs, and geographic location (Tittle & Denker (1980).

Personal Barriers

Personal barriers are those personality characteristics which prevent women from returning to higher education. Foremost among these characteristics are low self-esteem (Roehl, 1981), family attitudes, women's socialization process and women's needs and concerns. Feldman (1974) found that women students were more eager to express intellectual reasons for going to graduate school yet returning to school can be frightening. Many women believe that they will not achieve in the academic environment and may actually experience a low sense of self-worth.

For returning students, there has to be some kind of doubts about their return and their ability to be successful. Greenberg (1983) contends that these self-doubts are understandable, since society perceives learning as a young adult's prerogative. In Greenberg's (1983) work with students these are some of the questions that students ask themselves: How can I compete with young, bright students? How can I do well when I'm working full-time also? How can I pass my courses when I need to devote time to my family? How will I be able to spend as

much time in the library as students who live on campus? Will I have someone to study with or professors to consult with frequently as other students do on campus? Have I forgotten how to study? How well will I perform on an exam? These women are often victims of a common socialization process that robs them of their identity and self-worth (Churgin, 1978). Some of these women can cope while others need help.

Adelstein, Sedlacek, & Martinez (1983) found that women who were high on self-concept tended to think well of themselves, were more decisive, independent, and self-disciplined. These were the women who were good at assessing their strengths and weaknesses and had realistic expectations of what they could not get from their college experience. On the other hand, the researchers found that women who were low on self-concept tended to be depressed, bored and lonely, often anxious and guilty about returning to college. These are the women who are less clear about their academic goals and are reluctant to seek help. It would appear, therefore, that a woman's self-concept helps to determine her reaction to stress. If this is so, the returning-women graduate students need assistance with self-concept enhancement.

Since many women have learned to depend on significant others, they may never develop a complete sense of self. They tend to relate to themselves in terms of their husband's status or their children's achievement, rather than their own. Manis & Mochizuki (1972) maintain that this produces resentment towards self and significant others in these women's lives. Returning to higher education then is a significant event for these women and there exists a need for some type of help from the institution.

Institutional Response to Returning- Women's Problems

Several institutions of higher education have responded to the problems of returning-women students by initiating programs, centers, and courses especially designed for these students. These responses are aimed at helping students to overcome some of their problems. In 1960, the University of Minnesota formally organized a facility specifically committed to making the resources of the university more efficiently and effectively useful to adult women. It offered scholarships, aid for adult women, child-care facilities, and job placement services. The University of Michigan is another institution that founded one of the earliest centers for women in 1964. The center helps to facilitate a smooth return for the returning students by offering individual counseling, workshops, and publications. A program called Women Involved in New Goals (WING) is another student group created to meet the psychological needs of women returning to Queens College of New York. It also offers weekly meetings, workshops, speakers and special programs which enable the students to deal with dependency, guilt, sex discrimination, and career development. Similar centers were established at the University of Maryland at College Park and Kansas State University.

A national organization designed for adult women is the Association of Women's Active Return to Education (AWARE). AWARE has chapters in both two-year and four-year institutions, and consists of college women who are reentering the educational community. The different chapters encourage their enrollees to develop their greatest potential and promote

their educational objectives. The groups usually meet once each week during the semester and provide an informal atmosphere for peer support and information dispersion.

New Horizons, a college credit course, is also a common form of assistance offered by colleges and universities. The class helps the students to know themselves, to recognize their skills, and to gain self-confidence. Each class session has the format of small-group interaction. This has become the heart of many reentry programs.

Federal support for the development of model programs of continuing education is provided under the Women's Education Equality Act with an allocation of seven million dollars in 1977-1978 to develop programs for various groups of women, including the returning woman.

Researchers such as Roach (1976), Scott (1980) and, McGraw (1982) have made several recommendations to reduce the problems of returning students. From these recommendations, several programs were developed to reduce or eliminate psychological stress for women.

Life Events

Life events can be classified into two categories: a) general events, those that are common to the human experience (e.g., death, birth, marriage) and b) specific events which vary according to culture and the social environment (e.g., failing a course, or borrowing money for school). There have been numerous lists of life events (Spielberger, 1972; Holmes & Rahe, 1967), and numerous life event measures (Holmes & Rahe, 1967; Sarason, Johnson, & Siegel, 1978; Horowitz, Schaefer, Hiroto, Wilner, & Levin, 1977).

For many years, investigators have been involved in finding ways to help them to explain major health changes for a series of pathological and psychiatric disorders. There is now sufficient evidence to support the assumption that stressful life events does play a major role in some diseases and mental disorders. Vinokur & Seizer (1975) examined participants' life change events and their psychological reactions to these events, and found that an accumulation of undesirable life events was correlated with self-reported tension and stress, with emotional disturbance, and with somatic and behavioral manifestations of stress. Dohrenwend & Dohrenwend (1978) defined stressful life events as occurrences of such magnitude that they bring about a change in the individuals who experience these events. Myers, Lindenthal, Pepper, & Ostrander (1972) in a study of life events and social status, found that changes in psychiatric symptoms were related to occurrences of life events. Related also to life events is the difference in the way women respond to stress as compared to men.

Some Sex Differences

Some sex differences have been shown in life event studies. Individuals in low social status, who are under educated and women, are disproportionately exposed to stressful life events (Dohrenwend, 1973a). Women are reported to experience interpersonal stressors in greater numbers and tend to be more preoccupied with family events. They have problems with finance which cause more distress for them than men (Chiriboga & Dean, 1978). Women rated these events much higher for both the degree of effect and the amount of adjustment they required than did men. The outcome of these frequencies is that women tend to

have or experience higher Life Change Unit (LCU) scores, and more psychophysiological symptoms than do males. This is supported by Markush & Favero's (1974) research findings.

Psychological Stress and the Returning- Woman Graduate Student

Although returning women experience several different types of stressors, it would appear that many also experience significant pleasure in returning to higher education. Roehl (1981) specified that for some women marriage and relationships improved, they gained a sense of competency to help their families both in terms of their ability to give guidance and insight, they have more self-confidence and greater self-esteem, and they no longer feel they are simple servants to their husband and children. They feel happier, they are physically healthier, more alert, and more interested in life (Roehl, 1981).

At the same time that a college career alleviates the stressors which motivated women to return, and bring significant joy in the returning-women's lives, it is also introducing a new set of stressors with which to cope. The first of these is psychological stress.

Psychological Stress

Psychological stress has become a popular research arena since 1955 and has also gained the respect of many behavioral scientists (e.g., Spielberger, 1972; Sarason, Johnson, & Siegel, 1978; Roehl, 1981) who have expanded on the work of Hans Selye. In the quest for finding a definition for psychological stress, a pertinent examination of several researchers' work was undertaken.

Appley & Trumbull (1967) view psychological stress as a substitute for what might otherwise have been called anxiety, conflict, emotional distress, extreme environment condition, ego-threat, frustration, threat to security, tension, arousal, or some other previously respectable terms. Lazarus & Launier (1978) define psychological stress as the conscious or unconscious assessment of a person's resources and options. Sutterly & Donnelly (1979) define psychological stress as the impact of a variety of environment conditions that are either crowded or isolated, challenging or boring, rapidly changing or repetitious, and authoritarian or unstructured.

Psychological Stress Within the College Environment

A college campus is a setting in which a large number of students experience significant psychological stress (Morse & Furst, 1982). This is a function of the different pressures placed upon the student by a variety of factors such as anxiety, fear, self-doubt, and family pressures. These stressors are usually damaging because of their chronic nature, and though psychological in nature, they can be triggered by physical stressors as well. For returning-women graduate students, psychological stress can come from career pressures, financial worry, separation, feelings of inferiority, or even powerlessness.

Holahan (1979) has reported that it is psychological stress that is the most likely cause of withdrawal from graduate school for women more than for men. Rahe (1972) and Liao (1977) contend that psychological stress factors are of no significance in many illnesses and require some degree of adaptation by the person involved. Some returning-women

students are exposed to psychological stress factors external to the university environment. These include family responsibilities, self-concept, career achievement, and marital problems.

Family Responsibilities. Not only are older college students working, but many have family responsibilities as well. Returning-women graduate students fall into this category. They are faced with the problem of what to do with their after work time, so as not to neglect their children, their spouses or their in-laws. It becomes frustrating and tiring to have to do so much work in one day. The women in Spreadbury's (1983) study reported that their husband and children generally supported and encouraged their learning endeavors. In her research Berkove (1976) reported that the majority of women in her sample achieved husband support for their college attendance under the assumption that family and household roles would not be altered. This becomes stressful and unhealthy as well (VanMeter & Agronow, 1982). It appears that if these women's families can believe in them and look at the long term effects of what her going to school will be, for example, increased income or improved lifestyle, then she will not have to justify the expense of going to college or the neglect of her family members. Greenberg's (1983) study provides some evidence that adjustments can be made with little damage to the family.

Career Achievement. Many returning-women graduate students are people who are committed to a career, but are in college for some specific reason. There is a need for these students to do well in their careers and also in higher education, and this may also cause psychological stress. Greenberg (1983) maintained that each of these stressors

might be manageable, but when they coexist, there may be an overload, which could result in illness or disease.

Marital Problems. College students, whether young or old, make friends of the same or opposite sex. There is the need to feel wanted or to become sociable, yet returning women feel uncomfortable among other students (Roehl, 1981). Returning-women students find that they have a problem here, since there is not enough time to share conversation over a cup of coffee (Greenberg, 1983), or to attend 'happy hour' with their classmates. If they can find the time, then their families might become jealous of the time they spend with others. If a marriage or relationship is not strong, then separation is a possible result. This can be stress producing for the student and could affect her academic performance.

For most students, at times college becomes anxiety producing especially during tests and final examinations. To what extent then, does academia become stressful for students?

Academic Stress

The academic environment has become increasingly stressful for many students (Girdano & Everly, 1979), and more so for returning-women graduate students. The society's demand for higher education has created a highly competitive academic environment, and this begins even at the primary grade levels. At the college level, students are exposed to the possibility of graduate or professional schooling, but many graduate and professional schools demand honor status for a student to be considered for admission (Cross, 1974). Added to the admission process are testing procedures which become stressors for the incoming

student. Despite these obstacles, returning women persist in their academic pursuit for college degrees.

Manifestation of Academic Stress

Bloom (1975) found in a study of college students that feelings of depression and academic anxiety are an integral part of the learning process, and a common experience among all college students. Demieri (1979) in a study, explored the occurrence of academic anxiety among women in a selective liberal arts college. He found that the factors most predictive of low/high academic anxiety were class status and the degree of extracurricula activities. This means that having a high involvement in college activities is statistically related to low academic anxiety.

The graduate school environment can be an anxiety producing experience with high performance demands and competition (Gilbert, 1982). Graduate students, therefore, develop stress related symptoms from this pressure. Gilbert reported that graduate school cannot be viewed as a causal agent of psychiatric disturbance, but based on data collected at the University of Wisconsin, a relationship is evident. Academic stress from different sources does develop, and one source of stress for returning-women students comes from their lack of confidence in their ability to succeed in higher education (Hogan, 1980). Women, therefore, work harder and study longer than other students.

Grades. Hogan (1980) found that for returning women, maintaining excellence is a tremendous source of stress. Returning students worry about grades, doing a good job on term papers, and making a favorable

impression on professors. Many of these women, because they were originally dropouts, feel that they have to convince their families, spouses, children or even themselves that they have a right to be graduate students. Earning high grades become significantly important for returning women. Getting high grades is a sign of a worthwhile endeavor and so they do not only pass a course but excel in their studies. There is this pressure to keep high grades even if it is traumatic and agonizing. Harris (1972) investigated whether excessive life change would result in a kind of "academic illness" influenced by low grades. He found that GPA was inversely proportional to the amount of life change experienced in a one year period, and that this effect tended to remain constant regardless of college readiness.

Study Habits. In a survey of 2,632 graduates of Brooklyn College, Pearlman (1966) found 53.8 percent of the respondents noted that academic skills and study habits were particularly difficult areas with which to cope in college. The study also indicated that high ranking graduates were as much affected by these problems as lower achieving ones. Adelstein, Sedlacek, & Martinez (1983) found that in their study returning women who expressed their academic needs felt that they needed basic skills, academic skills, test taking skills, refresher courses, study or office space, and academic advising. In her sample of returning women, Hogan (1980) found they spend their free time studying. The typical study pattern for returning-women students begin after they return home from classes. Further, Hogan (1980) found that if they did not work, they studied until dinner time, then studied again until bedtime, and their weekends were devoted to studying for exams. Since they spend so much time studying they neglect family obligations,

which causes guilt and controversy resulting in another source of stress.

Course Overload. Overload, according to Girdano & Everly (1979) is a level of stimulation or demand that exceeds the capacity to process or comply with these demands. Course overload means having too many courses or having difficult courses during one semester (Greenberg, 1983). This can result in the student accomplishing much in the shortest period of time, but not having enough time to enjoy the courses and learn more. Greenberg (1983), explains that many students do this to graduate in the shortest possible time, have less financial problems, and spend more time with family and friends. The result, however, is that many of these students suffer physically, their emotions become elevated, they neglect family and friends, and they become stressed.

Moderator Variables

There are several mediating variables, personal, or physical which can decelerate, accelerate, or cushion the impact of stressful life events for any individual. Past researchers have examined mediating variables such as social support and self-esteem (Roehl, 1981), internal-external control (Johnson & Sarason, 1979a) and pregnancy and birth complications (Nuckolls, Cassell, & Kaplan, 1972). Other mediating variables that are of interest are age, financial status, and the time spent away from college.

Age

Various phrases have been used to describe the returning-woman student but the majority of researchers have used age and maturity as

the primary descriptors. These analogies include "reentry student," "stop-out," "reengagement student" (Scott, 1980), "returning adults" (Rice & Goering, 1977), "adult learner" (Cassell, 1971), and "mature woman student" (Doty, 1966).

Three groups of returning students were identified by Riddle (1980), and they are described in terms of age. There is the young returning student (25-30 years old), the traditional graduate student (30-35 years old), and the Life Enchantment Group which included mostly senior citizens. In terms of age, Richards (1976) also identified three types of reentry-women students. Type I were 20-30 years old and single; Type II were 20-30 years old, married and had children at home; and Type III were over 35 years old, married and had children who were over 14 years old. Scott (1980) in her study of returning women found that their median age was 35.

What are the consequences of returning to college at the age range given by these researchers? Markus (1976) found that women over 40 years old experienced many problems and disappointments when they returned to college. When they are compared to their younger classmates who stayed away from college for shorter periods or none at all their younger classmates reported fewer problems. A study performed by Bross (1967) found that mature students were more earnest and instructors expected and got better than average work from these students.

Financial Status

Nationally, people are divided into status levels. These status levels are termed socioeconomic. Formerly, a person's socioeconomic level was a means to advancement. This has changed because the majority

now use education as one means of moving from one level to another. Generally, those who come from middle or upper class backgrounds are more likely to attend and complete college than those who come from lower or working class origins (Reissman, 1959). In general, people from lower and working class backgrounds cannot find the support for college, the motivation, nor the necessary preparation. Cross (1974) in her research found that the largest number of academically superior young people attending college are from the lower socioeconomic levels. Included in this group are Black women.

Within the university or college environment it is believed that some students suffer from stress caused by financial deficiency. Girdano & Everly (1979) discussed the problems students suffer caused by socioeconomic factors. Financial problems are more pronounced if the student comes from the working class or lower income level. These are the students who attend college part-time and need financial aid or graduate assistantships.

Financial difficulties rank as one of the major stressors in students' lives (Yates, 1979) since the individual usually thinks this is a reflection of one's inept ability to earn money. According to Tittle & Denker (1980) students from the low socioeconomic status tend to withdraw from college at a higher rate than students from higher socioeconomic status. In a survey done by Benjamin (1979) the data show that most returning students are financially well-off but there were also many women representing the low socioeconomic group. Status level, however, might be irrelevant to the cause of the degree of stress since Holmes & Rahe (1967) show that any change whatever in financial condition is a cause for stress.

Shertzer & Linden (1979) contended that researchers in education, psychology, and sociology characterize students socioeconomic status to include motivation to achieve, reasons for dropping out of college, level of academic achievement, level of intelligence, and occupational choice. Feldman (1974) reported that 74 percent of all married females relied on their husband's income to support them through college.

Time Away From College

It is alledged that women graduate students are more likely than males to drop out of school because of pressures from their spouses. Sexton (1976) concedes that 21 percent, or almost one in four women graduate students drops out of school for this reason, but only nine percent of male graduate students do. Scott (1980) reports that 48 percent of all women returning to school drop out at least once since their return. Ferriss (1971) in a study found out that the median time lapse from baccalaureate to doctorate was 11.2 years for women. Astin (1969) reports that women took about 12 years to complete their degrees and were four years older than their male colleagues.

The drop out of female students in higher education is not only caused by discriminatory practices but also by obligations that are involved with family and child rearing. One-third of the married graduate-women students attend school on a full-time basis, while the others are on a part-time basis.

Lack of interest in college is another reason given by women for dropping out and economic need the third. In 1970, the median years of school completed by women age 25 and over ranged from a high of 12.4 to a low of 10.3 years (Sexton, 1976). For women to survive or become

successful in academia, they have to develop ways of coping with academic pressure. The following section is a discourse on coping with stress.

Coping with Psychological and Academic Stress

Pearlin & Schooler (1978) defined coping as the concept used to refer "to any response to external life-strains that serves to prevent, avoid or control emotional distress" (p. 3). They distinguish three major types of coping responses: a) responses that change the situation out of which the strainful experience arises, b) responses that control the meaning of the strainful experience after it occurs, but before the emergence of stress; and c) responses that function more for the control of stress after it has emerged. These are responses women could utilize in their reaction to stress.

In order for returning-women students to successfully compete with other students and maintain family stability they must learn to cope with the stressors with which they are faced. According to Hogan (1980), coping should include women's adjustment to school and consist of those methods which they use to meet varied responsibilities.

Roehl (1981) in her research on returning women, suggests that coping has to be a multistage process in which one considers information intake and deliberation, decision making and execution, and evaluation of feedback which has to be related to each other. It would seem that one possible way to deal with stress is to withdraw or pretend that the problem does not exist, but the solution is not that simple. Lazarus & Launier (1978) delineate these types of coping responses upon which the individual relies, for example, avoidance, denial, attack, isolation,

information-gathering, projection, regression, displacement, help seeking, self-reliance, and positive comparison. Probably one of the most important methods of coping is to develop one's own personal and reasonably satisfying support system.

Five factors have also been suggested that influence coping and stress management strategies of the returning-women students (Hogan, 1980). These are her mental status, the nature of the role she plays in her family, the presence or absence of children, the ages of the children, and the economic earning of her family. Roach (1976) suggested that stress is caused by an imbalance between the woman's attitude towards a changing self and her family's attitude. Coping mechanisms, then should include ways of reducing the imbalance. Psychological stress or academic stress management techniques for returning women should not, therefore, be restricted to any single coping mechanism. It is important for them to use all the resources available to them.

Summary

The related literature presented is a review relative to returning-women graduate students and how they are affected by psychological stress and academic stress. Quantitative research on returning-women graduate students is lacking in the literature. Most of the research done on returning students is limited to undergraduates with not much of a distinction made between males and females. There is, however, specific research done on returning women in general. This might be so, since it would appear that these are the students who have to significantly make adjustments in their lifestyles in order to fit into the college or university environment.

Studies conducted on returning women tend to reflect their descriptive characteristics, their on-campus maladaptation, and counseling programs and their effect on these students. There appears to be a consensus on the outcome of these studies. Students need help from student services. Studies conducted on psychological stress as it affects returning women is now appearing in the literature through doctoral dissertations. Research on academic stress is virtually nonexistent and the few studies done on academic performance and college students has been heavily criticized.

The literature has established that returning-women students experience much discomfort caused by psychological stress and pressure with the college environment. This study will differ significantly from those already reviewed based on the selected sample (women graduate students). These women are presumably unique in their approach to recognizing and coping with psychological stress and academic stress. More importantly are the moderator variables to be used in this study - age, financial status, and time spent away from college.

Of significance to this study are the instruments to be utilized in measuring psychological stress and academic stress. Positive life events and their effects have been designated as less attractive for cause-effect relationships of psychological stress. In this study the researcher will attempt to seek out levels of relationships between psychological stress and academic stress of graduate women.

The Academic Stress Questionnaire to be used in this study will be developed by this researcher to be used for measuring academic stress. Other instruments used to measure academic performance were inadequate

for this study. Previous researchers used grade point averages or instruments utilizing demographic-type variables to measure stress.

This study is exploratory in nature, but should be of relevance to other researchers seeking cause-effect relationships or causal-comparative relationships. This is especially significant if studies are longitudinal in nature.

CHAPTER III

METHODOLOGY

This chapter describes the participants and the procedures used for sample selection, followed by a description of the instruments used in the study. The collection and statistical treatment of the data are also reported. The chapter concludes with a summary.

Participants

The participants for this investigation were 106 women graduate students enrolled in the graduate school in the spring semester of 1984 at a university situated in the Southwestern section of the United States. The 106 women who participated in the study were primarily Caucasian (92%) and married (64%). Divorced women made up 11 percent and single women 19 percent. Women with children accounted for 58 percent of the sample, with 18 percent having only one child. Ten percent of the women were over 46 years old. The median age fell between 32 and 36 years of age. Fifty-three percent were enrolled in Education, 19 percent registered in Home Economics and 15 percent were enrolled in Arts and Sciences (Table I).

Of the 106 women in the study, 24 percent were curriculum and instruction majors, 14 percent applied behavioral studies majors, eight percent were higher education, six percent were home economics, home

economics education, and business administration majors. Thirty-three majors were represented in the sample. (See Table II for a complete breakdown.)

TABLE I
NUMBER AND PERCENT OF GRADUATE WOMEN
ENROLLED BY COLLEGE

College	Frequency	Percent
Education	56	53
Home Economics	20	19
Arts and Sciences	16	15
Business Administration	9	8
Engineering	3	3
Agriculture	2	2
Total	106	100

Twenty percent of the respondents had completed an average of 37 hours towards their degree with 37 percent enrolled in at least seven credit hours and 52 percent enrolled in 3 credit hours. The women's reasons for attending graduate school included job preparation (44%), personal fulfillment (36%) and career change (12%). Thirty-nine percent indicated that they would seek immediate employment after completion of the degree, with 15 percent having no present plans. Others specified

that they would change their jobs, rest, do independent research or put their husbands through school.

TABLE II
NUMBER AND PERCENT OF GRADUATE WOMEN BY MAJORS

Department and Majors	Frequency	Percent
Curriculum and Instruction	25	23.6
Applied Behavioral Studies in Education	15	14.2
Higher Education	8	7.5
Home Economics Education	6	5.7
Business Administration	6	5.7
Food, Nutrition and Institution Administration	5	4.7
History, English, Occupational and Adult Education, Educational Administration	4	3.8
Business Education, Family Relations and Child Development, Home Economics	3	2.8
Others	34	32.0
Total	106	100.0

Personal income for 34 percent of these women was under \$10,000 with 21 percent earning between \$15,000 and \$20,000 per annum. Twenty percent earned between \$20,000 and \$30,000 with eight percent earning over \$30,000. For combined family income, 25 percent were earning over \$50,000 annually. Thirty-four percent of the spouses were classified

as professional, seven percent as skilled workers, and 17 percent were also enrolled in college. While 14 percent of the women were graduate assistants another 76 percent worked outside the home.

Sample Selection

The participants were selected through computer processing supervised by the university's Office of Administrative Systems using the following steps:

1. It was determined from computer listing that there was a population of 1,619 women-graduate students enrolled in the Graduate College in the spring semester of 1984. The list provided mailing address, telephone number, major, and adviser for each student.
2. Using the roster for the spring and summer commencement exercises, women who were on the graduation list were eliminated from the population. This was a total of 223 leaving a population of 1,396 graduate women.
3. Two hundred women (14%) were randomly selected for the sample used in the study. One hundred and twenty (60%) of the sample returned the survey; of these, 106 (53%) were usable.

Instrumentation

The Life Experiences Survey (LES)

Development of the LES. The instrument used in this study to measure psychological stress was a modified version of the Life Experiences Survey (LES). This is a self-report measure developed by Sarason, Johnson, & Siegel (1978) that measures life events as defined in terms of accumulated negative life events.

The original LES questionnaire consists of 57 items and instructs the respondents to select the events they had experienced during the past year. In addition, they were asked to rate separately the desirability and impact of those events. The questionnaire is such that for each event experienced the respondent would indicate whether it was good or bad, and how much perceived effect the event had on his/her life using a four-point scale, ("none" = 1, "some" = 2, "moderate" = 3, and "great" = 4). The items on the scale represent life changes frequently experienced in the general population. Many of these events are found on existing life measures. Thirty-four of the events are similar to those on the Social Readjustment Rating Scale (SRRS), one of the first developed by Holmes & Rahe (1967), to measure life stress. The remainder of the items are common to the human experience.

There are two sections of the LES. Section 1 is applicable to the general population and contains a list of 47 specific events that are common to many individuals in a variety of situations. Examples of these are marriage, violating the law, major changes in financial status, and death of a family member. Section 2 contains items that are applicable to college students. These are questions common to the academic environment. Examples of these were failing a course, dropping a course or changing a major. The LES is shown in Appendix A.

Three scores were obtained from the LES measure by Sarason, Johnson, & Siegel (1978). There was a) a positive change score, the effects of those deemed positive by the respondents and these were summed, b) a negative change score was similarly computed for those events seen as negative, and c) a total change score was computed by adding the two values (negative and positive) to represent the total amount of change.

Based on the findings of other research with life events measures, it was decided that the total negative life events score would be used as the measure of life stress. This was done by a simple counting of the number of events that were scored as negative by the respondents. The decision was based on previous research done by Johnson & Sarason (1979b), Miller, Ingham, & Davidson (1976), Vinokur & Selzer (1975), along with other researchers who found that undesirable events were a stronger predictor than did positive event scores.

Several minor modifications were made to the Life Experiences Surevey to make it more applicable for a sample of women graduate students. This was judged to be legitimate since some events are important and meaningful to some groups of subjects and not to others (Dohrenwend & Dohrenwend, 1974). Several researchers have also used a modified version of life events questionnaire to study various types of psychological symptoms (Dohrenwend, 1973b; Coates, Moyer, & Wellman, 1969; Myers, Lindenthal, Pepper, & Ostrander, 1972). A total of 48 items were adapted. Forty-one items were common to any given female population and seven were taken from the student only section. Questions that would be endorsed by men (e.g., leaving a girlfriend) were eliminated along with some questions from the student only section - joining a fraternity or sorority, academic probation, and dismissal from a dormitory/residence. Although undesirable events were a better predictor, positive events were also examined in this study, since the researcher was examining differences in relationships. Another modification made was on the description for types of events. Pleasant was substituted for good (=1) and unpleasant for bad (=2); also the effect of the event was described as none (=1), mild (=2), moderate (=3), and

major (=4). Summing the impact ratings of these events or effects designated as pleasant by the respondent provided a positive change score. A negative or unpleasant score is obtained by summing the impact ratings of those events or effect experienced by the respondent as negative.

Reliability of the LES. Two test-retest reliability studies were conducted by Sarason, Johnson, & Siegel (1978) for the LES. Subjects for both studies were drawn from psychology courses with a five to six week time interval between test and retest. Thirty-four subjects were in the first study and 58 in the second. Responses to the test were scored for positive, negative and total life changes in each case. Pearson product-moment correlations were computed to determine the relationships between scores obtained at the two testings. Test-retest correlations for the positive change scores were 0.19 and 0.53. The reliability coefficients for the negative change score were 0.56 and 0.88. The coefficients for the total change score were 0.63 and 0.64.

There is a degree of variation in the findings of the two studies. Sarason, Johnson, & Siegel (1978) suggested that this is based on the relatively small sample sizes since the LES is reliable when the negative and total change scores are considered.

Validity of the LES. To validate the LES the developers correlated scores from the instrument with relevant personality indices. A group of 100 male and female students drawn from a psychology class were administered the LES, the State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970), and a shortened form of the Marlow-Crowne Social Desirability Scale (Strahan & Gerbasi, 1972). Academic

transcripts were obtained for 75 of the students. Correlations among life change scores, anxiety, and grade-point average (GPA) were computed. Correlations showed that total and negative scores correlate significantly with the anxiety measure. With regard to GPA, positive, negative and total change scores were all found to be negatively correlated to academic achievement. Correlations between positive change scores and GPA were $r=-0.21$; between negative change scores and GPA were $r=-0.38$, and between total change scores and GPA $r=-0.40$. These results were consistent with other studies done by Constantini, Braun, Davis, & Iervolino (1973) and Carranza (1973).

The Academic Stress Questionnaire (ASQ)

Development of the ASQ. The Academic Stress Questionnaire (ASQ) was designed by this researcher to measure the degree of academic stress graduate women experience within the academic environment. An item bank for the ASQ was obtained from statements reported in the stress literature, from interviews and written communications with academic advisers and counselors, who have worked with college students learning to cope with stress. The ASQ is a Likert-type scale consisting of 18 items, and is divided into three subscales - general academics (6 items), personal feelings (8 items), and student services (4 items). Respondents were instructed to answer each statement depending on how she actually feels using the response: Strongly Agree (SA), Agree (A), Disagree (DA), and Strongly Disagree (SD). Scores associated with the statements are 4, 3, 2, 1 for response options, respectively. The questionnaire was developed out of a need for a suitable instrument for gathering academic stress data on graduate women.

In developing the ASQ, it was administered to 200 graduate women during August and September of 1984. The original questionnaire contained 35 items. An item analyses was performed on the instrument and items were deleted based on their item total correlation. This instrument is shown in Appendix B. The final 18 items were categorized into three groups according to their content: general academics, personal feelings and student services (Appendix C).

Reliability and Validity of the ASQ. Reliability of the ASQ gathered in this study was obtained using Cronbach's Alpha Coefficient which gives an estimate of internal consistency. The statistical procedure for category one, general academics (6 items) yielded a coefficient alpha of 0.70; for category 2 - personal feelings (8 items) yielded a coefficient alpha of 0.79; category 3 - student services (4 items) yielded a coefficient alpha of 0.79. For all 18 items the coefficient alpha was 0.89. For validation of the ASQ item total correlations were obtained and only those items with a correlation of 0.40 or above were included. This is shown in Appendix D.

The Demographic Questionnaire (DQ)

The demographic questionnaire was administered to all participants in order to gain information about their background. They were asked to report their ethnicity, age, marital status, their spouses' occupation, level of education and whether they were presently enrolled in college. Additional information concerning number and age of children was also requested along with their college, department, and major area of study. The women were also asked if they were graduate assistants, number of credit hours they were enrolled in and the number of credit

hours they had already completed. Also solicited was information on their occupation before entering graduate college, the years they received their Bachelor's and/or Master's degree and the year they started graduate school. Participants responded to questions concerning the number of breaks they took during the Bachelor's and graduate degrees and the length of those breaks. On the matter of financial status, the participants indicated the type of financial assistance they received from the university if any, their personal average yearly income along with their combined family income. They also described their reason for attending graduate school and what plans they have after they complete their present degree. The Demographic Questionnaire is shown in Appendix E.

Data Collection

In August, 1984, a total of 200 randomly selected women-graduate students were mailed an introductory letter requesting their participation in the study (Appendix F). Accompanying the letter were the Life Experiences Survey, the Academic Stress Questionnaire, the demographic questionnaire and a self-addressed, stamped return envelope. Fourteen days after the initial mailing date, a follow-up was done through telephone calls and mailed post cards. By September 14, 1984, 120 (60%) questionnaires were returned. Of these 106 (53%) were deemed usable. Information concerning the data collection is shown in Table III. Of the 14 questionnaires returned but not used, some were not completed, blank, or respondents expressed that they had either graduated, were not attending college, or the questionnaire was too personal. Of the 80 that were not returned a tally showed that 32 were

Education majors with the majority enrolled in Curriculum and Instruction, 16 were from Arts and Sciences, 10 from Home Economics, nine from Business Administration and the others from Agriculture and Engineering. Of the 80 students who did not return the battery of questions, 42 lived in the environs of the university with the others coming from the outlying areas.

TABLE III
DATA COLLECTION PROCESS

Collection Process	Sample	Total Sample Percent
Random Selection	200	100
Addresses Available	200	100
Mailed Questionnaire	200	100
Returned - Not delivered	1	
Returned Completed	120	60
Usable Questionnaire	106	53
Final Study Sample	106	53

Statistical Procedure

This study sought to examine if certain significant variables affected the relationships between psychological stress (as measured by

life events) and academic stress. The LES and the ASQ were selected as the measurement instruments and an independent test of correlations (The Fisher's Z-transformation of r) was chosen for examination of the data (Glass & Stanley, 1970). A normal distribution is assumed among the population sampled, based on the responses to the instrument used. The sample was randomly selected to represent the population. The independent test of correlations (Fisher's Z-transformation of r) was appropriate for testing hypotheses 1, 2, and 3. An alpha level of $p < 0.05$ was set for decision on all hypotheses.

Pearson correlation coefficients between the variables were calculated and reported. The correlations were reported in order to examine patterns that occurred in the relationships.

A median split was done to identify a) graduate women 36 years old or less versus graduate women over 36 years old, b) graduate women earning less than \$15,000 versus graduate women earning more than \$15,000, and c) graduate women having a break of three years or less versus those having a break of more than three years.

Summary

The sample for this study was obtained through simple random sample from a computerized list of women graduate students. The chapter contains a description of the data collection, with the statistical treatment of the data.

The battery of measures took the participants 20 minutes to complete. The total battery included The Life Experiences Survey, the Academic Stress Questionnaire, and the demographic questionnaire.

The first two independent variables were total positive and total negative life events reported by the participants over the last year. The second set of dependent variables were pleasant and unpleasant effects reported by the participants. For this study, psychological stress was the negative life event and effect scores and the positive life event and effect scores on the modified 48-item Life Experiences Survey. Statements on the survey include both universal events and events that are common to the academic environment.

Academic stress, another dependent variable was measured by the Academic Stress Questionnaire, an 18-item survey rated on a 4-point scale. The measure was scored by summing across each dimension. High scores on this scale were indicative of high academic stress. The independent variables used in the study were age, financial status, and time spent away from college.

CHAPTER IV

RESULTS

This chapter presents the results of the data collected for investigating the hypotheses stated in Chapter I. Data concerning each hypothesis are presented. The chapter concludes with a summary of the results.

Research Findings

Hypothesis I

One of the primary research hypothesis of this investigation was that there would be a significant difference in the relationship between psychological stress and academic stress when compared by age. Response to the Life Experiences Survey (LES) and the Academic Stress Questionnaire (ASQ) yielded scores to test significant differences. Subscales on the LES (pleasant events, unpleasant events, pleasant effects, unpleasant effects), and the ASQ (general academics, personal feelings, student services) were used to identify the correlations. An independent test of correlations was performed to show the possible differences in the relationship between psychological stress and academic stress when compared by age. Unpleasant events and general academics yielded a significant difference in correlation ($Z=2.00$, $p<0.05$). Unpleasant events when correlated with student services also yielded a significant difference in relationship ($Z=2.316$, $p<0.05$). Unpleasant effects when

correlated with student services was significantly different ($Z=2.43$, $p<0.05$). Summary of Z values are shown in Table IV.

TABLE IV
FISHER'S Z-TRANSFORMATION OF r COMPARING AGE 36 AND
YOUNGER WITH OVER 36 ON THE RELATIONSHIP BETWEEN
LIFE EXPERIENCES AND ACADEMIC STRESS

Life Experiences	Academic Stress	Fisher's Z-Transformation of r		
		General Academics	Personal Feelings	Student Services
Pleasant Events		1.65	0.29	-0.20
Unpleasant Events		2.00*	1.53	2.32*
Pleasant Effects		0.27	-0.28	-0.40
Unpleasant Effects		1.47	1.31	2.43*

* $p < 0.05$

Correlations for pleasant events and pleasant effects showed no significant difference. An examination of the Pearson correlation coefficient (Table V) indicate that for graduate women 36 years and younger unpleasant events and general academics has a correlation of $r=0.30$, while for women over 36 years unpleasant events and general academics show a difference in correlation of -0.12 . For women under 36 years, unpleasant effects and student services showed a difference

TABLE V
CORRELATION COEFFICIENTS OF AGE WITH LIFE EXPERIENCES BY
ACADEMIC STRESS SUBSCALES

Academic Stress Life Experiences	Age 36 or Younger			Over Age 36		
	General Academics	Personal Feelings	Student Services	General Academics	Personal Feelings	Student Services
Pleasant Events	r= 0.041 n= (64)	0.026 (64)	-0.087 (62)	-0.14 (37)	-0.036 (36)	-0.044 (35)
Unpleasant Events	r= 0.30 n= (64)	0.21 (64)	0.19 (62)	-0.12 (37)	-0.12 (36)	-0.31 (35)
Pleasant Effects	r=-0.011 n= (62)	-0.057 (62)	-0.11 (60)	-0.068 (36)	0.0044 (35)	-0.021 (34)
Unpleasant Effects	r= 0.24 n= (61)	0.18 (61)	0.19 (59)	-0.074 (36)	-0.11 (35)	-0.34 (34)

in correlation of $r=-.19$, while for women over 36, the difference in correlation was $r=0.34$. Difference in correlation between unpleasant events and student services was $r=0.19$ for women under 36 years; for women over 36 years the difference in correlation between unpleasant events and student services was -0.31 .

The significant differences in correlations suggest that age is related to the relationship between psychological stress and academic stress for graduate women students. The differences in correlation also suggest that for women under 36 years old, as unpleasant events increase problems with general academics and student services also increase. For older women, as unpleasant events decrease, problems with general academics increase.

Hypothesis II

Another primary research hypothesis of this investigation was that there would be a significant difference in the relationship between psychological stress and academic stress when compared by financial status. Response to the Life Experiences Survey (LES) and the Academic Stress Questionnaire (ASQ) yielded scores to test for significance. Subscales on the LES (pleasant events, unpleasant events, pleasant effects and unpleasant effects), and the ASQ (general academics, personal feelings, student services) were used to identify the relationships. For comparison on personal income, a median split was done on income to categorize participants into those earning \$15,000 or less, and those earning \$15,000 and more. An independent test of correlation showed significant differences between psychological stress and academic stress when compared by income. The test between income levels differed

in correlation for pleasant events and general academics yielding $Z=2.07$, ($p<0.05$) and the test between pleasant effects and general academics yielded $Z=-1.98$, ($p<0.05$). Statistics are reported in Table VI.

TABLE VI
FISHER'S Z-TRANSFORMATION OF r COMPARING LOW AND HIGH
PERSONAL INCOME ON THE RELATIONSHIP BETWEEN LIFE
EXPERIENCES AND ACADEMIC STRESS

Life Experiences	Academic Stress	Fisher's Z-Transformation of r		
		General Academics	Personal Feelings	Student Services
Pleasant Events		-2.07*	-1.52	-0.92
Unpleasant Events		1.54	1.45	-1.50
Pleasant Effects		-1.98*	-1.41	-1.24
Unpleasant Effects		1.03	1.64	-1.68

* $p < 0.05$

The data indicate that there is a significant difference in the relationship between levels of financial status on psychological stress and academic stress. Actual correlations are reported in Table VII. For women in a low income setting, the relationship between pleasant

TABLE VII
CORRELATION COEFFICIENTS OF PERSONAL INCOME WITH LIFE
EXPERIENCES SURVEY BY ACADEMIC STRESS SUBSCALES

Academic Stress Life Experiences	\$15,000 Income or Less			Over \$15,000 Income		
	General Academics	Personal Feelings	Student Services	General Academic	Personal Feelings	Student Services
Pleasant Events	r=-0.25 n= (52)	-0.15 (50)	-0.15 (49)	0.18 (47)	0.17 (48)	0.042 (46)
Unpleasant Events	r= 0.24 n= (52)	0.20 (50)	-0.23 (49)	-0.075 (47)	-0.10 (48)	0.090 (46)
Pleasant Effects	r=-0.22 n= (50)	-0.15 (48)	-0.18 (47)	0.19 (46)	0.15 (47)	0.089 (45)
Unpleasant Effects	r= 0.20 n= (51)	0.20 (49)	-0.28 (48)	-0.013 (44)	-0.15 (45)	0.075 (43)

events and general academics yielded an $r=-0.25$, while for women in the over \$15,000 category, the correlation was reversed at $r=0.18$. For women with low income, the difference in relationship between pleasant effects and general academics was negative (-0.22), while for women earning over \$15,000 the difference in the relationship showed a correlation of 0.19.

These results indicate that, graduate women earning \$15,000 or less, had a negative, but, relatively weak correlation between pleasant events and academic stress, while graduate women earning more than \$15,000 had a positive relationship. The data suggest that, the more pleasant events low income women had, the less problems they had with general academics. The fewer pleasant events that these women experienced the more problems they had with academic stress. For women with high income, there was only a nominal relationship between pleasant events and academic stress.

Hypothesis III

There is a significant difference in the relationship between psychological stress and academic stress when compared by time spent away from college. Data reported in Table VIII indicate that there was no significant difference in the relationship between psychological stress and academic stress when compared by time spent away from college. Based on the categories given for breaks between bachelors and graduate studies (1-2 semesters, 1-3 years, 4-6 years, 7-9 years), a median split was done to place the participants into two groups. The two groups were a) graduate women who had a break of three years or less and b) graduate women who had a break of more than three years.

There was no significant difference in relationships shown on any of the dependent variables. It is apparent from the correlations presented in Table IX that there was no significant difference in the relationship between psychological stress and academic stress for women who had a break of three years or less between their bachelor's degree and returning to graduate school, and for those women who had a break of more than three years.

TABLE VIII

FISHER'S Z-TRANSFORMATION OF r COMPARING THREE YEARS OR LESS OR MORE THAN THREE YEARS BETWEEN BACHELOR'S DEGREE AND GRADUATE STUDIES ON THE RELATIONSHIP BETWEEN LIFE EXPERIENCES AND ACADEMIC STRESS

Academic Stress	Fisher's Z-Transformation of r		
	General Academics	Personal Feelings	Student Services
Life Experiences			
Pleasant Events	1.23	0.48	0.19
Unpleasant Events	-0.47	0.19	-0.94
Pleasant Effects	1.07	0.41	0.098
Unpleasant Effects	0.38	0.43	-1.18

TABLE IX
 CORRELATION COEFFICIENTS OF YEARS BETWEEN BACHELOR'S
 DEGREE AND STARTING GRADUATE STUDIES WITH LIFE
 EXPERIENCES BY ACADEMIC STRESS SUBSCALES

Academic Stress Life Experiences	Three Years or Less			More Than Three Years		
	General Academics	Personal Feelings	Student Services	General Academics	Personal Feelings	Student Services
Pleasant Events	r= 0.086 n= (35)	0.078 (35)	-0.028 (34)	-0.20 (45)	-0.035 (43)	-0.020 (42)
Unpleasant Events	r= 0.0066 n= (35)	0.083 (35)	-0.16 (34)	0.12 (45)	0.039 (43)	0.068 (42)
Pleasant Effects	r= 0.11 n= (35)	0.085 (35)	-0.0090 (34)	-0.15 (42)	-0.013 (40)	0.033 (39)
Unpleasant Effects	r= 0.055 n= (34)	0.072 (34)	-0.21 (33)	-0.036 (43)	-0.033 (41)	0.081 (40)

Summary of the Results

The hypotheses will be discussed briefly. Analysis have been given and Tables IV through IX are the results of inferential analysis.

Hypotheses

1. There is a significant difference in the relationship between psychological stress and academic stress when compared by age (<36, >36). The research hypothesis was supported. The correlation between unpleasant events and general academics ($Z=2.00$, $p<0.05$) and unpleasant events with student services ($Z=2.32$, $p<0.05$) were significantly different for the two age groups. The correlation of unpleasant effects with student services ($Z=2.43$, $p<0.05$) was also significantly different for the two age groups. High scores on stress indicate presence of stress.

2. There is a significant difference in the relationship between psychological stress and academic stress when compared by financial status (<\$15,000, >\$15,000). The research hypothesis was supported. The correlation between pleasant events and general academics ($Z=-2.07$, $p<0.05$) and between pleasant effects and general academics ($Z=-1.98$, $p<0.05$) were significantly different for the income levels.

3. There is a significant difference in the relationship between psychological stress and academic stress when compared by time spent away from college. The research hypothesis was not supported by the data. There was no statistically significant variations between the dependent variables, psychological stress and academic stress for the different levels of years spent away from college (<3 years, >3 years).

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

One of the purposes of this study was to answer the following question: Are there certain variables that effect the relationship between psychological stress and academic stress. The following hypotheses were tested.

1. There is no significant difference in the relationship between psychological stress and academic stress when compared by age.

2. There is no significant difference in the relationship between psychological stress and academic stress when compared by financial status.

3. There is no significant difference in the relationship between psychological stress and academic stress when compared by time spent away from college.

In the summer of 1984, it was determined that 1,619 women graduate students were enrolled in the graduate college. For inclusion in the sample, 200 graduate women were chosen from the population by a simple random sample. The final study included 106 women graduate students.

Data were collected in August and September of 1984 by means of a mailing process. Each participant was mailed the Life Experiences Survey (Sarason, Johnson, & Siegel, 1978), the Academic Stress

Questionnaire developed by this investigator, and a demographic questionnaire asking for background information on each respondent. Also accompanying the instruments was an introductory letter.

Significant tests using Fisher's Z-transformation of r was used to test for differences in relationships between the variables, psychological stress and academic stress, for levels of age, financial status, and time spent away from college. Pearson correlation coefficients were also calculated between the variables to demonstrate specific patterns of relationships for each level of age, financial status, and time spent away from college. The level of significance for all statistical treatments was set at $p < 0.05$ level.

The following findings and results were reported.

1. There was a significant difference in the relationship between psychological stress and academic stress when compared by age. Graduate women, 36 years and younger were found to exhibit more academic stress with increasing levels of unpleasant events. Women over 36 years old had a more nominal relationship. For women over 36 years, the more unpleasant events and their effects the less problems they experienced with student services. For women under 36 years the relationship was nominal.

2. There was a significant difference in the relationship between psychological stress and academic stress when compared by financial status. Graduate women earning \$15,000 or less, showed that the more pleasant the events and their effect the less problems they experienced with general academics. Also, the more unpleasant the event and its effect the more problems these women had with general academics. For women earning over \$15,000 nominal relationships were demonstrated between the variables.

3. There was no significant difference in the relationship between psychological stress and academic stress when compared by time spent away from college. The research hypothesis was not supported by the data.

Conclusions

The data presented in this study reflect a difference in the relationship between psychological stress and academic stress when compared by age, financial status and time spent away from college. Graduate women were the participants in this investigation. From the results several inferences are reported in this section.

1. The results of the study evidenced significant difference in correlations between psychological stress and academic stress when compared by age for graduate women 36 years or younger versus graduate women over 36 years old. For the younger woman the more unpleasant events and their unpleasant effects the more general academics stress reported, while for women over 36 years, there was a nominal relationship.

2. A difference in relationships between psychological stress and academic stress when compared by financial status was supported by the data presented in the investigation. Women earning \$15,000 or less evidenced negative correlation between the number of pleasant events and pleasant effects, while women earning over \$15,000 indicated low positive correlations. Davis (1962) supports the idea that graduate students do not worry a great deal about finances as compared to people in the general population. Eighty-three percent of the women in this sample were not getting any kind of financial assistance from the

university. Benjamin (1979) proposed that most returning women are financially well-off. Twenty-one percent of the women in this sample were earning 20 to 30 thousand dollars per year. These might not be women who are having problems with student services or academics. Presumably these women are self-sufficient, or they might be internally motivated and had less need for outside help.

On the other hand, women earning less than \$15,000 per year reveal that the more pleasant events they had the less problems encountered with general academics. It would also appear that both groups of women were coping with their personal feelings, whether the events and their effects were pleasant or unpleasant.

3. One of the research hypothesis made in this study was that there would be a difference in the relationship between psychological stress and academic stress when compared by time spent away from college. No significance was found between the correlation. A possible explanation for this outcome may be that the sample of women used in this study are not truly returning women. Based on the number of hours in which the women were enrolled, all were already in college for more than one semester. If this assumption is valid, then these students could have already been through a period of readjustment, hence no need to report major effects of stress within the specified period of one year.

Recommendations

This investigation is an exploratory study of some of the stressors graduate women face in higher education. These are stressors identified with life events and problems in the educational environment. Several

recommendations for research and counseling are listed below that concern graduate women.

Future Research

1. Since significant differences in correlations were found in this study, future research should be conducted with graduate women which would yield information regarding where differences lie between psychological stress and academic stress. This could be done by using comparison groups of students.

2. Better research measurements for assessing academic stress should also be developed. Current psychometrical measurements are virtually nonexistent or inadequate. Emphasis on stress has become too important a factor in studying college students for this to be ignored. Graduate students in educational psychology or school psychology could focus on developing and refining such instruments.

3. Further investigation is needed to examine the variable such as time spent away from college and how it affects college students on their return to college. Do they develop or acquire greater tolerance levels to combat academic stress or not? Pre-tests could be administered to these students at the beginning of their first semester back to campus, a similar test at half semester and perhaps a follow-up at the end of the semester. Comparisons could be made to identify levels of stress at those periods.

4. Since this study evidenced that there were some relationships between psychological stress and academic stress moderated by the ages of graduate women, further research could examine stress using age as a predictor variable.

5. There is also information to be gathered from the cause-effect relationship between psychological stress and academic stress employing longitudinal studies. Future research in stress on college students should give further consideration to other demographic variables such as hours enrolled, number of children, or college major.

Implications for Counseling

1. Counselors are important to all students on a university or college campus, but more so to students faced with problems that have become insurmountable.

2. Counselors can become the sounding board for graduate-women students who might need avenues in finding financial assistance to continue their degrees. Directing students to the Financial Aid Office is not enough. Students need other sources of direct help and support whether it is part-time work, or an empathic listener - another woman perhaps who provides understanding instead of handing the students a stack of information sheets.

3. Perhaps counseling centers will need counselors who understand the psychology of older women. These older women might not be the individuals who seek out counseling, although they might need help. Counselors will have to seek out these older students and offer help through orientation programs or on-going short seminars.

4. Counseling programs that are developed for these unique students should at least be wide-range since stress patterns and the coping skills of each student can be entirely different. To help to alleviate psychological stress for graduate women, inoculation techniques could be offered through short-session courses, sponsored by the University

Counseling Center. In these short courses, students could focus on stress awareness, i.e. what is stress and how it can be controlled. Simple relaxation techniques could be demonstrated as one of the ways to arrest stress. In order to reduce academic stress, workshops could be offered on test anxiety, and academic skill building. These could be one-session workshops in which students would learn how to control anxiety, build academic skills and time management. A mentor-type program or the buddy-system is also an alternative to helping graduate women. Students who are already within a program of study could be assigned to another student to help with problems common to a course or the university system (knowing where to find a building, how to study for a particular professor's exam, and having study sessions or study groups).

Graduate women could also assist professors in federal and state proposal writing to attain funding for graduate work such as dissertation writing. Workshops or eight-week short courses could also be offered on proposal writing, and information made known regarding fellowships available (nationally and locally).

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APPENDICES

APPENDIX A
LIFE EXPERIENCES SURVEY

LIFE EXPERIENCES SURVEY

This survey measures "life changes." Listed below are a number of events which may bring about changes in the lives of those who experience them.

Rate each event that occurred in your life during the past year as pleasant (P) or unpleasant (Unp) by putting a circle around your response.

To show how each event affected your life, circle the appropriate descriptor: no effect (none), mild effect (mild), moderate effect (mod), major effect (major).

Event	Type of Event		Effect of Event on Your Life			
1. Marriage	P	Unp	None	Mild	Mod	Major
2. Detention in jail or comparable institution	P	Unp	None	Mild	Mod	Major
3. Death of spouse	P	Unp	None	Mild	Mod	Major
4. Major change in sleeping habits (much more or much less sleep)	P	Unp	None	Mild	Mod	Major
5. Death of close family member	P	Unp	None	Mild	Mod	Major
6. Major change in eating habits (much more or much less food intake)	P	Unp	None	Mild	Mod	Major
7. Foreclosure on mortgage or loan	P	Unp	None	Mild	Mod	Major
8. Death of close friend	P	Unp	None	Mild	Mod	Major
9. Outstanding personal achievement	P	Unp	None	Mild	Mod	Major
10. Minor law violation (traffic tickets, disturbing the peace, etc.)	P	Unp	None	Mild	Mod	Major
11. Pregnancy	P	Unp	None	Mild	Mod	Major
12. Changed work situation (different work responsibility, major change in working conditions, working hours, ec.)	P	Unp	None	Mild	Mod	Major
13. New job	P	Unp	None	Mild	Mod	Major
14. Serious illness or injury of close family member	P	Unp	None	Mild	Mod	Major
15. Sexual difficulties	P	Unp	None	Mild	Mod	Major
16. Trouble with employer (in danger of losing job, being suspended, demoted, etc.)	P	Unp	None	Mild	Mod	Major
17. Trouble with in-laws	P	Unp	None	Mild	Mod	Major
18. Major change in financial status (a lot better off or a lot worse off)	P	Unp	None	Mild	Mod	Major
19. Major change in closeness of family members (increase or decrease in closeness)	P	Unp	None	Mild	Mod	Major
20. Gaining a new family member (through birth, adoption, family member moving in, etc.)	P	Unp	None	Mild	Mod	Major
21. Change of residence	P	Unp	None	Mild	Mod	Major
22. Marital separation from mate (due to conflict)	P	Unp	None	Mild	Mod	Major
23. Major change in church activities (increased or decreased attendance)	P	Unp	None	Mild	Mod	Major
24. Marital reconciliation with mate	P	Unp	None	Mild	Mod	Major
25. Major change in number of arguments with spouse (a lot more or a lot less)	P	Unp	None	Mild	Mod	Major

Event	Type of Event		Effect of Event on Your Life			
26. Change in husband's work (loss of job, beginning new job, retirement, etc.)	P	Unp	None	Mild	Mod	Major
27. Major change in usual type and/or amount of recreation	P	Unp	None	Mild	Mod	Major
28. Borrowing more than \$10,000 (buying home, business, etc.)	P	Unp	None	Mild	Mod	Major
29. Borrowing less than \$10,000 (buying car, TV, getting school loan, etc.)	P	Unp	None	Mild	Mod	Major
30. Being fired from job	P	Unp	None	Mild	Mod	Major
31. Having abortion	P	Unp	None	Mild	Mod	Major
32. Major personal illness or injury	P	Unp	None	Mild	Mod	Major
33. Major change in social activities, e.g., parties, movies, visiting	P	Unp	None	Mild	Mod	Major
34. Major change in living conditions of family (building new home, remodeling, deterioration of home, neighborhood, etc.)	P	Unp	None	Mild	Mod	Major
35. Divorce	P	Unp	None	Mild	Mod	Major
36. Serious injury or illness of close friend	P	Unp	None	Mild	Mod	Major
37. Retirement from work	P	Unp	None	Mild	Mod	Major
38. Son or daughter leaving home (due to marriage, college, etc.)	P	Unp	None	Mild	Mod	Major
39. Separation from spouse (due to work, travel, etc.)	P	Unp	None	Mild	Mod	Major
40. Engagement	P	Unp	None	Mild	Mod	Major
41. Breaking up with boyfriend	P	Unp	None	Mild	Mod	Major
42. Reconciliation with boyfriend	P	Unp	None	Mild	Mod	Major
43. Beginning a new school experience at a higher academic level	P	Unp	None	Mild	Mod	Major
44. Failing an important examination	P	Unp	None	Mild	Mod	Major
45. Changing a major	P	Unp	None	Mild	Mod	Major
46. Failing a course	P	Unp	None	Mild	Mod	Major
47. Dropping a course	P	Unp	None	Mild	Mod	Major
48. Financial problems concerning school (in danger of not having sufficient money to continue)	P	Unp	None	Mild	Mod	Major

APPENDIX B

ACADEMIC STRESS QUESTIONNAIRE

ACADEMIC STRESS QUESTIONNAIRE

The following is a series of statements associated with you and the academic environment. Please read each statement carefully, and select the numbered descriptors that best describe how you actually feel. Place a circle around that descriptor and number according to the following scale.

Descriptors

- 4 = Strongly Agree (SA)
 3 = Agree (A)
 2 = Disagree (D)
 1 = Strongly Disagree (SD)

-
1. I was enthusiastic about graduate school when I first started.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |
2. I find myself with insufficient time to complete my academic assignment.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |
3. I feel overwhelmed by the academic demands placed on me.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |
4. I am coping well emotionally with being a graduate student.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |
5. I am enthusiastic about graduate school now.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |
6. Sometimes I become confused and unable to think clearly about my career goals.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |
7. I wish I had help from student services in career planning.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |
8. I wish I had help from student services during enrollment and registration.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |
9. These are the best years of my life.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |
10. I am doing well academically.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |
11. I wish I had help from the counseling center in the area of family conflicts.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |
12. I experience much academic stress at this university.
- | | | | |
|----|---|---|----|
| SA | A | D | SD |
| 4 | 3 | 2 | 1 |

13. My professors assign too many academic tasks.

SA	A	D	SD
4	3	2	1

14. I always have time to do my academic tasks.

SA	A	D	SD
4	3	2	1

15. Before I came to this university I imagined that I would do well academically.

SA	A	D	SD
4	3	2	1

16. I experience academic pressure most of the time.

SA	A	D	SD
4	3	2	1

17. Sometimes I feel that I will not be able to finish graduate school.

SA	A	D	SD
4	3	2	1

18. I wish I had help from the counseling center with study skills.

SA	A	D	SD
4	3	2	1

APPENDIX D

ACADEMIC STRESS QUESTIONNAIRE-CATEGORIES

ACADEMIC STRESS QUESTIONNAIRE CATEGORIES

General Academics

1. I find myself with insufficient time to complete my academic assignments.
2. I am doing well academically.
3. I experience much academic stress at this university.
4. My professors assign too many academic tasks.
5. I always have time to do my academic tasks.
6. Before I came to this university, I imagined that I would do well academically.

Personal Feelings

1. I was enthusiastic about graduate school when I first started.
2. I feel overwhelmed by the academic demands placed on me.
3. I am coping well emotionally with being a graduate student.
4. I am enthusiastic about graduate school now.
5. Sometimes I become confused and unable to think clearly about my career goals.
6. These are the best years of my life.
7. I experience academic stress most of the time.
8. Sometimes I feel that I will not be able to finish graduate school.

Student Services

1. I wish I had help from student services in career planning.
2. I wish I had help from student services during enrollment and registration.
3. I wish I had help from the counseling center in the area of family conflicts.
4. I wish I had help from the counseling center with study skills.

APPENDIX D

ITEM PART CORRELATION FOR ITEMS ON THE
ACADEMIC STRESS QUESTIONNAIRE

ITEM PART CORRELATION FOR ITEMS ON THE ACADEMIC STRESS QUESTIONNAIRE
(N=106)

Item	Subscale	Item Part Correlation
1. I was enthusiastic about graduate school when I first started.	Personal Feelings	0.62
2. I find myself with insufficient time to complete my academic assignment.	General Academic	0.59
3. I feel overwhelmed by the academic demands placed on me.	Personal Feelings	0.60
4. I am coping well emotionally with being a graduate student.	Personal Feelings	0.84
5. I am enthusiastic about graduate school now.	Personal Feelings	0.67
6. Sometimes I become confused and unable to think clearly about my career goals.	Personal Feelings	0.49
7. I wish I had help from student services in career planning.	Student Services	0.85
8. I wish I had help from student services during enrollment and registration.	Student Services	0.83
9. These are the best years of my life.	Personal Feelings	0.66
10. I am doing well academically	General Academics	0.69
11. I wish I had help from the counseling center in the area of family conflicts.	Student Services	0.77
12. I experience much academic stress at this university.	General Academics	0.71
13. My professors assign too many academic tasks.	General Academics	0.69
14. I always have time to do my academic tasks.	General Academics	0.48
15. Before I came to this university I imagined that I would do well academically.	General Academics	0.66
16. I experience academic pressure most of the time.	Personal Feelings	0.62
17. Sometimes I feel that I will not be able to finish graduate school.	Personal Feelings	0.65
18. I wish I had help from the counseling center with study skills.	Student Services	0.68

APPENDIX E
DEMOGRAPHIC QUESTIONNAIRE

INFORMATION SURVEY

This information survey is intended to provide some understanding of women graduate students.

Please check (✓) one answer for each of the questions.

1. Your ethnic background could be classified as which of the following?

1. Black _____	3. Indian American _____	5. Caucasian _____
2. Asian American _____	4. Hispanic _____	6. Other (please specify) _____
2. What is your age?

1. Under 22 years _____	3. 27-31 years _____	5. 37-41 years _____
2. 22-26 years _____	4. 32-36 years _____	6. 42-46 years _____
		7. Over 46 years _____
3. What is your marital status?

1. Single _____	3. Separated _____	5. Widowed _____
2. Married _____	4. Divorced _____	
4. If married, what is your spouse's occupation?

1. Major executive of large concern _____	4. Clerical/Sales worker/Technician _____
2. Lesser professional/business manager _____	5. Skilled _____
3. Owner of small business _____	
5. Is your spouse presently enrolled in a college/university?

1. Yes _____	2. No _____
--------------	-------------
6. What is your spouse's level of education?

1. Professional _____	4. 10-11 years schooling _____
2. 1-3 years college/business school _____	5. Under 10 years schooling _____
3. High school graduate _____	
7. Do you have children?

1. Yes _____	2. No _____
--------------	-------------
8. If yes, how many?

1. 1 _____	4. 4 _____
2. 2 _____	5. Other _____
3. 3 _____	
9. What are the ages of your children?

1. Under 12 months _____	3. 7 years-12 years _____	5. 19 years-24 years _____
2. 1 year-6 years _____	4. 13 years-18 years _____	6. Over 24 years _____
10. In what college are you enrolled? _____
11. What department? _____
12. What is your major area of study? _____
13. Are you a graduate assistant? 1. Yes _____ 2. No _____
14. How many credit hours are you enrolled in?

1. 2-5 _____	3. 10-13 _____	5. Other _____
2. 6-9 _____	4. 14-18 _____	
15. How many credit hours have you completed towards your degree?

1. Less than 10 _____	4. 22-27 _____	7. 40-45 _____
2. 10-15 _____	5. 28-33 _____	8. Over 45 _____
3. 16-21 _____	6. 34-39 _____	

16. What was your occupation before entering graduate school?
1. Homemaker _____ 3. Worked outside the home _____
 2. Self-employed _____ 4. Other (please specify) _____
17. In what year did you graduate from college/university with your bachelor's degree? _____
18. During the time you were pursuing your bachelor's degree, how many breaks (stop outs) did you take?
1. None _____ 3. Two _____ 5. More than 3 _____
 2. One _____ 4. Three _____
19. What was the longest break that you took while doing your undergraduate degree?
1. 1-2 semesters _____ 3. 4-6 years _____ 5. 10 years or more _____
 2. 1-3 years _____ 4. 7-9 years _____
20. During what calendar year did you start graduate school?
1. Master's Level _____ 2. Doctoral _____
21. At the master's level how many breaks have you had while attending college/university?
1. None _____ 3. Two _____ 5. More than three _____
 2. One _____ 4. Three _____
22. What was the longest break that you took while doing your master's degree? (excluding summer school)
1. 1-2 semesters _____ 3. 4-6 years _____
 2. 1-3 years _____ 4. 7-9 years _____
23. In what year(s) did you receive your Master's degree(s)?
1. _____ 2. _____ Not applicable _____
24. Are you currently receiving financial assistance from this university?
1. Yes _____ 2. No _____
25. If yes, please state the source of financial assistance.
-
26. At present, what is your personal average yearly income?
1. Under \$10,000 _____ 3. \$15,001-\$20,000 _____ 5. Over \$30,000 _____
 2. \$10,001-\$15,000 _____ 4. \$20,001-\$30,000 _____
27. What is your combined family's average yearly income?
1. Under \$20,000 _____ 3. \$30,001-\$40,000 _____ 5. Over \$50,000 _____
 2. \$20,001-\$30,000 _____ 4. \$40,001-\$50,000 _____
28. Which of the following would best describe your reason for attending graduate school at this time?
1. Job preparation _____ 3. Personal fulfillment _____
 2. Career change _____ 4. Too much time on your hands _____
 5. Other (please specify) _____
29. What are your plans after you complete your present degree?
1. Post graduate studies _____ 4. No plans at present _____
 2. Another degree _____ 5. Other (please specify) _____
 3. Immediate employment _____

APPENDIX F

INTRODUCTORY LETTER TO PARTICIPANTS OF STUDY

O K L A H O M A S T A T E U N I V E R S I T Y

Date: August 20, 1984
To: Women Graduate Students
From: Joyce V. Rhoden, Doctoral Candidate
Applied Behavioral Studies in Education
Subject: Research Project

I am presently investigating the relationship between psychological stress and academic stress of women graduate students to determine whether these variables are related to income, age, time spent away from college, etc. This letter is requesting your participation and cooperation in filling out the attached survey.

The survey will require about twenty (20) minutes to complete and is presented in three parts - The Demographic Questionnaire, The Life Experiences Survey and The Academic Stress Questionnaire. You are kindly asked to return the survey in the enclosed self-addressed, stamped envelope as early as you can.

Although some of the questions might appear personal, all the information gathered will be given full protection of confidentiality. The results of this study can be made available to you upon your request.

Thanks for your sincere cooperation.

VITA 2

Joyce Vivette Rhoden
Candidate for the Degree of
Doctor of Education

Thesis: PSYCHOLOGICAL AND ACADEMIC STRESS OF WOMEN GRADUATE STUDENTS

Major Field: Counseling and Student Personnel

Biographical:

Personal Data: Born in St. Ann's Bay, Jamaica, the daughter of Eric and Edna Smith; married to Errol G. Rhoden, 1970; children; Errol Jr., and Shelly-Mae.

Education: Attended public schools, Jamaica; graduated from high school, December, 1963; received Jamaica Teachers' Certificate from Shortwood Teachers' College in 1968; received Bachelor of Arts degree in English from Tuskegee Institute in 1979; received Master of Education degree from Tuskegee Institute in 1980; completed requirements for the Doctor of Education degree at Oklahoma State University in May, 1985.

Professional Experience: Teacher in Jamaica public schools, 1968-1976; graduate assistant in Residence Life and Development, Tuskegee Institute, 1979-1980; English instructor, Tuskegee Institute, January-July, 1980; graduate assistant, Applied Behavioral Studies in Education and Sociology Departments, Oklahoma State University 1981-1982.

Professional Organizations: Student Liaison - American Personnel and Guidance Association, Oklahoma Association for Counseling and Development; Lambda Iota Tau.